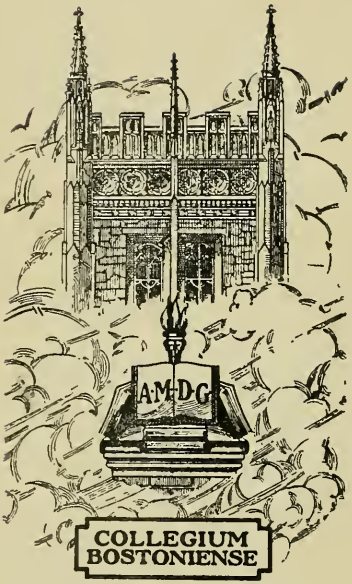
WAR AND THE WORLD'S LIFE

COLONEL F. N. MAUDE, C.B.



In Memory Of
John Boyle O'Reilly

Mary Boyle O'Reilly

Auburndale

1 9 2 8

WAR AND THE WORLD'S LIFE

BY THE SAME AUTHOR

Date	Title	Publishers
1888	INVASION AND DEFENCE OF ENGLAND	Thacker & Spink, Calcutta and London
1888	LETTERS ON TACTICS AND ORGANISATION	Thacker & Spink, Calcutta and London
1893	MILITARY LETTERS AND ESSAYS	Hudson & Kimberley Publishing Co., Fort Leavenworth, Kansas, U.S.A.
1894	CAVALRY *VERSUS* INFANTRY	
1896	PRINCE HOHENLOHE'S CONVERSATIONS ON CAVALRY	J. J. Keliher & Co., London
1896	ATTACK OR DEFENCE	
1897	VOLUNTARY *VERSUS* COMPULSORY SERVICE	Edward Stanford, London
1900	NEW BATTLE OF DORKING (F. N. and M. E. Maude)	Grant Richards, London
1903	CAVALRY: ITS PAST AND FUTURE	W. Clowes & Sons, London
1904	EVOLUTION OF MODERN STRATEGY	W. Clowes & Sons, London
1905	EVOLUTION OF INFANTRY TACTICS	W. Clowes & Sons, London

WAR

AND

THE WORLD'S LIFE

BY

COLONEL F. N. MAUDE, C.B. *p.s.c.* (late R.E.)

Late O.C. 1st Hants R.E. Volunteers

LECTURER ON MILITARY HISTORY TO THE MANCHESTER UNIVERSITY
LECTURER ON MILITARY LAW TO THE LONDON UNIVERSITY
FORMERLY EDITOR AND LIBRARIAN OF THE
ROYAL UNITED SERVICE INSTITUTION

WITH DIAGRAMS AND MAP

BOSTON COLLEGE LIBRARY
CHESTNUT HILL, MASS.

LONDON
SMITH, ELDER, & CO., 15 WATERLOO PLACE
1907

[All rights reserved]

U102
M48

168488

TO

MY WIFE

WITHOUT WHOSE ENCOURAGEMENT AND ASSISTANCE
I SHOULD NEVER HAVE COMPLETED
THIS BOOK

Digitized by the Internet Archive
in 2011 with funding from
Boston Library Consortium Member Libraries

http://www.archive.org/details/warworldslife00maud

PREFACE

In the following pages I have endeavoured to trace out the consequences which must follow from the gradual assimilation by all Continental Powers of the principles laid down by Clausewitz as guiding the conduct of Modern War, and the inevitable reaction upon our own position.

The essence of his teaching may be summed up in the words, 'War is closely analogous to business competition, pushed to its full logical consequences, and unrestrained by the action of any law other than that of expediency.' In other words, this is simply the Darwinian formula of the 'struggle for existence' transferred to the National Plane. As in the struggle of individuals the one best fitted to its environment survives, so also with the Nations. But there is this essential difference between the two cases, that whereas between individuals of the same species no ethical consideration can be observed to work (*i.e.* 'fittest' does not necessarily mean ethically the 'best'), as between two great Nations it is essentially the ethical factor which dominates all others, and this in precise proportion to the more or less advanced stage of civilisation of the two contending Powers.

Two Races may be equal in physical capacity, in intelligence, and directing ability, but if the standard of self-sacrifice in the one is lower than in the other, the balance will infallibly turn against it in the final arbitrament on the field of Battle. But 'self-sacrifice' ultimately includes duty, honour, and personal integrity, the same qualities which make a Nation great, contented, and powerful in Peace. Hence we get back to the fundamental conclusion that 'first in Peace' carries with it, as a necessary corollary, 'first in War.'

Hence again no organisation for War can be sound in principle unless it conduces also to efficiency in Peace.

Now the merit of Clausewitz's great book 'On War' lay, not so much in the thoughts it contains, for many other great intellects during the previous three centuries had often anticipated him, but in this, that at the right psychological moment he formulated for his countrymen, between the covers o one book, the whole teaching of the twenty-five years of na ional anguish and degradation which they had all alike endured. The conditions were ripe for the seed to germinate, and insensibly it struck root in the hearts of the people, from the highest to the lowest, giving to the letter of Scharnhorst's reforms the vivifying spirit needed to ensure its fruition in the form in which we now see it.

For many years, I, like most of my contemporaries in the Army, was dazzled by the splendid strategical implement the thoughts of these two men had evolved. I saw only the finish of the parts, the freedom from friction with which they geared one into another, and nothing seemed to me more desirable than that we should in turn create by 'Ukase' an exact imitation of the model before us. Probably had I remained in the Regular Army I should be of the same opinion still.

But in 1892 I left the Service, and then as business experience came to me in the natural course of events, I began to realise how very narrow was the line dividing international trade competition from actual hostilities, that in fact the consequences to the beaten Nation were identical in both, and differed only in the greater or less rapidity of their action.

Then the factor of 'Environment' dawned upon me, and one by one the stories of my house of cards, based on a compulsory foundation, fluttered to the ground. As they fell, however, a stronger fabric, standing on a surer basis, rose in their stead, for I began to realise the immense influence exercised by the ethical qualities in War over forms and technical details.

The result I submit to the judgment of my readers in the following chapters, and I will only plead in extenuation of possible sentence by many critics, that they, in exercising

their prerogative, will take the trouble to go down to the bedrock foundations of our national ethical development.

I contend that essentially truth, honour, justice, and self-sacrifice are as necessary to ultimate success in business competition as they are in War—only the need is not so apparent in the former as in the latter. For that very reason War is an indispensable necessity of human progress, for without its lessons these fundamental principles are apt to be forgotten in the race for wealth.

In a healthy national body, the Army must of necessity incorporate these virtues in the highest degree compatible with the existing standard of ethical evolution ; and there is no doubt in my own mind that the country in which the greater number of men are actually willing to come forward to be inoculated, more or less, with the protective virus of these good qualities, is morally healthier and therefore better fitted to survive than are any of its possible adversaries not so minded. The widespread dissatisfaction with which the public at present regard the condition of the Army serves to strengthen this analogy. If each individual did not realise, more or less, the need for improvement, the nation would be as dead as was China fifty years ago. It is the first step towards moral recuperation to realise that such improvement is desirable.

If, and in so far as, our existing organisation falls short of my ideal, as I need hardly admit that it does, it would be very different in spirit if I were allowed dictatorial powers for a five year term. I submit that the cause lies in the failure of the responsible authorities to state its case in such a manner as to enlist the widest sympathy of the mass of the people.

The most deep-seated instinct in any race is expressed in its religious convictions, which taken as a whole may be regarded as the instinctive recognition in each individual of what conduct in his fellows is best fitted to ensure the survival of the race under all conditions of its existence. But as I have shown that successful organisation for War (the surest means of keeping the Peace) is only possible in proportion as the ethical factors, on which all religions rest,

are a living reality in the national life, it follows that we have here a common platform on which all denominations of religious teachers might reasonably unite to support us—as in fact the few who understand the matter from personal experience have always been ready to do.

It is not easy to suggest how the clergy are to be approached in such a matter—it is too largely a question of the personality of the individual employed. But much has been done in the past few years, and the experience which many individuals have accumulated might be further utilised.

Again, if the analogy between War and business is as close as Clausewitz contends that it is, it ought to be possible to bring home to business men the truth of War in a form which they can readily understand.

Actually, no one has ever attempted a History of War from the point of view of the business firms involved. The generality of works on money and finance devote at most a short chapter to the effect of hostilities, in certain concrete cases, on national credit, but the ramifications of trouble resulting from such disturbance through various specific trades have, to the best of my knowledge, never been touched upon. Yet, to the merchant, the record of the struggle of some particular firm against the day to day difficulties which War must bring in its train should be as fascinating as the story of a regiment in some hard-fought campaign would be to a soldier.

Some good was indeed accomplished by the recent Committee on Food Supply in War time, but this was largely discounted by the fact that the Commissioners placed their chief reliance on the principles of International Law being rigidly followed by the combatants. *They seemed quite unaware of the effect which nearly a century of the insistent teaching of Clausewitz's doctrine of 'expediency,' as the sole restraining influence on the use of Force in War, must inevitably exercise on the attitude of our adversaries in the matter.*

A series of specific inquiries addressed by the Government to all our great Banking institutions and Insurance firms as to how they severally proposed to meet the strain of a

prolonged gold panic, might have better effect nowadays. At least it would bring home to some of the acutest minds in the country the reality of their danger—and 'forewarned' might then become 'forearmed.' Had such an inquiry been set on foot five years ago, I feel convinced that the scheme of Army Reform now before the country could never have seen the light, as its effect must of necessity be to intensify the material troubles which in War time we shall have to confront and conquer.

My conviction is that our existing system of Voluntary service has never yet received a fair trial. The rock on which it rests is the instinct in favour of Voluntary Service that finds its first expression in the Volunteers, which, as a body, are still only in their infancy. What they might yet become, if continuity in the conditions of their existence could only be assured, now that they have acquired property and in doing so have struck their roots well home throughout all the strata of which society is built up, I have endeavoured to indicate in my concluding chapters. All that is necessary to realise these ideals is confidence in their financial stability to attract the capital needed for the prosecution of the building programmes I have therein sketched out, and that was bound to come as events justified these predictions.

I can prove this point from my own experience in command of the 1st Hants R.E. Volunteers, a corps with only fifteen years' existence, located in a relatively poor and backward district, as compared with the great manufacturing centres of the North.

When I took over the Battalion it consisted of only four companies, and possessed as its Headquarters and Drill Hall a ramshackle old shed, with offices, the whole in such a disgraceful state of disrepair that we were several times threatened by the Town Council with injunctions to pull it down altogether. The site, however, was well chosen, and appreciating rapidly in value.

I at once endeavoured to enlist the sympathies of the townspeople (not an easy matter against the competition of the two old-established Battalions of Artillery and Infantry already in the field), and with this object I prepared the

prospectus of a Limited Company to build the Drill Hall I wanted and let it to the Battalion for a rent which would pay four per cent. to the shareholders, the rent being guaranteed out of our capitation grant. But War Office credit was very low in Portsmouth, and no one would believe in the continuity of the Volunteer conditions.

Ultimately I borrowed the money needed from the Public Works Loan Commission at 3½ per cent., repayable in thirty years, and the Hall, far inferior, indeed, to what I wanted, was duly completed. Now the point is this. In spite of the burden of the repayment of the loan by annual instalments the Corps has been steadily making money, and if, instead of 3½ per cent., plus instalments, I had only had to pay a rental of 4 per cent. on the capital cost, I should have been able to set aside between two and three hundred a year for the 'Old Age Endowments,' Scholarships, etc., alluded to in Chapter XVII. of this book, notwithstanding the heavy additional expenses due to the small numerical strength of the Battalion, which makes the cost per head work out at a higher figure, the extra cost with which all Engineer Corps are handicapped when compared with Artillery and Infantry, and the fact that, unlike the North Country Corps, we are compelled to pay our men when in camp.

Given ten years of such balance-sheets as we should have been able to show, and I believe none of the wild proposals now before the country would ever have seen the light. But, unfortunately, I found that everyone in authority whom I endeavoured to interest in my ideas was too overwhelmed by the chaos into which the whole administration of the Army had been thrown by the adoption of the many half-digested schemes of reform under which the Service has been suffering, to have either time or interest to spare for the consideration of my plans. Some, indeed (these were not amongst my personal friends, I need scarcely add), seemed quite incapable of understanding a building proposition or an Endowment scheme at all. Summarising the whole of my experience, I found that everyone was so busy in trying to finish off the details of the external ornamentation of their new design that

they had altogether forgotten the foundations upon which it ought to rest.

In order to obtain a wider and more favourable field in which to demonstrate my propositions I then applied for the command of a Volunteer Brigade in my own county, a post for which twenty years' service in the Regular Army and a Staff College certificate constituted, I imagined, sufficient qualification. The reply, however, which I received was to the effect that it had been ruled 'that no Officer of the Royal Artillery or Royal Engineers could be considered as qualified to command a Volunteer Infantry Brigade.'

One is reminded irresistibly of Napoleon's remark to a Prussian officer from whom, after Jena, he inquired whether any Engineer or Artillery officers had held commands in the army he had just defeated, and who replied that in the Prussian Army these officers were not considered eligible for such positions. 'C'est bien bête,' was the Emperor's comment. In our case it is, indeed, worse, for at the present juncture of affairs it is precisely the business training which an Engineer is compelled to assimilate in India and elsewhere, which renders him by far the most efficient agent for linking together the conflicting, or apparently conflicting, interests, of the civilian and soldier. He can state his case in a form which the business man can understand, and can appreciate the latter's standpoint; and I am quite convinced, from the ready responses to my proposals I have met with in the North, that within a few years I could have easily materialised my programme. Then the County Associations would have grown of themselves to meet the inherent factors of the situation; for ultimately, since each Volunteer unit is concerned in the efficiency of its neighbour (with whom it may have to fight shoulder to shoulder), all must consent to 'pool' their financial resources so as to help towards uniformity those Corps financially less favourably situated, which would otherwise lag behind, and thus an Administrative Control must eventually evolve itself.

The general improvement in the status of the Volunteers which must have resulted from the acceptation of the ideas I have developed must of necessity react upon the whole Army,

for the Militia would be compelled to improve to keep pace with it; and improvement in both would stimulate the Regular Army to maintain in every respect its pre-eminence, and the higher that stands the greater will be the influx of recruits. For the man with the soldier-spirit in him, the man we want, will never rest satisfied with the second place when he sees, by watching the relations of the Permanent Staff with their Regular Officers, that the first place is to be won not only without loss of self-respect, but at a positive gain in consideration.

My experience has convinced me of this, that nothing exercises a stronger attraction on the would-be recruit of the better class than the object-lesson in the discipline of the Regular Army which he obtains by studying the relations of the Permanent Staff with one another. When they realise that perfect discipline can exist without the smallest loss of self-respect—discipline ceases to hold terrors for the would-be recruit, and he gladly follows his 'call to arms.'

But the greater the number of fishes the larger the catch, therefore, since the test we apply is primarily 'psychic' not 'physical,' the more men we can pass through the mill the greater the probability of securing the best. This, however, entails increasing our numbers, not limiting them. If, however, my fundamental contention is accepted, viz. that a Nation's progress both in Peace and War is determined mainly by the predominance of the ethical factors in its population, then it necessarily follows that it is to our interest to increase our numbers, not to limit them; and such increase must pay for itself by an increment in the efficiency of industry in every field. We admit the principle with regard to intellectual education, why not extend it also to the domain of morals? The spirit of Clausewitz's teaching rules the world of War to-day, and *numbers* are its indispensable foundation. What verdict will posterity pass upon the Statesmen who, in face of the struggle for existence now rapidly and inevitably approaching, prefer to limit themselves to a force of 500,000 men out of a nation of 42 million, containing some 8 million adults physically fit to bear Arms, of whom over 3 million have already undergone more or less training?

I do not blame the Statesmen, for essentially they are briefed by the Soldiers, and had I remained in the Regular Army I should probably have succumbed to my environment even as they. It is the case of the proverbial two stools, but we are not yet definitely committed to either, and therefore, though we are at the eleventh hour, I have ventured to cast aside all reserve, and place the true issue before the people, in the hope that, once their eyes are opened to the absolute danger looming in the near future, their representatives, elected or otherwise, may understand all that is at present at stake, and take adequate precautions against defeat. The essence of the whole matter at this moment lies in the financial responsibility of the Commanding Officers. Relieve them of that and you destroy the prime incentive to exertion. Instead of affording scope for the ablest business men in the country to assist in the evolution of a true National Force, you compel them to the exercise of their imitative faculties only, in the endeavour to ape the outward, peace-time parade manner of the Regular Officer. It will save trouble, and may very likely become popular, *but with it will go the whole driving force on which our further evolution depends.* This 'driving force' consisted essentially in the mental effort necessary for a Colonel to develop and maintain the attractiveness of his command as a whole against the competition of all the many rival amusements touting to secure the youth of the country, such as football, golf, cricket, etc., and it compelled the commander to concentrate his mind upon the individual tastes, habits, and nature of the people in his district, in a manner which, in proportion to his thoroughness, bred between him and them that confidence in one another which is the first guarantee of efficiency in the field, which in Peace can be acquired in no other way. In War it grows naturally from contiguity and example. In a Regular Regiment, in Peace it descends by tradition and long-continued association, and more particularly from the fact that Officers are still responsible for what is known as the interior economy of their units, *i.e.* everything relating to clothing, food, pay, and comfort of the men.

Practically there is no 'interior economy' in the Volunteers,

for, except for the week in camp, the men live where they please, eat what they can get, and except on parade a Commanding Officer rarely sees his men at all. But the knowledge which insensibly filtered down through the keenest men in all ranks, that all the year round the Colonel was thinking and working for the good of the whole body, constituted, if I may use the expression, 'a thought atmosphere' knitting the whole together in a manner which I think has astonished every ex-Regular Officer who has accepted such a post.

The essence of the whole matter lies in this, that it was only by his success in this particular direction, that he could win the confidence of his men—his tactical efficiency meant nothing to them, for not only are they quite incapable of pronouncing judgment on such points, but a Commissioned Officer's opportunities for displaying such ability were far too few for it to signify much. If he won their respect in the things they could understand they willingly gave it him in others. Once, however, this touchstone is withdrawn, and Drill Halls, uniforms, etc., fall upon the just and unjust alike, they will judge him by their own self-selected standards, which will generally be the standpoint of the daily Press, rarely a reliable guide in these matters.

The whole trouble is a legacy of the South African War, fought under conditions which cannot arise on the continent of Europe, still less in England. Experience in Manchuria, however, has again demonstrated that the elemental fighting instinct of 'masses' which ultimately finds its expression in 'cold steel' is still the decisive weapon in the hands of the Leader, provided always that he knows how to create suitable conditions for its employment—and therein lies the whole art of Leadership.

Our leaders have forgotten Moltke's definition of the Art of War—viz. 'the art of making the best practical use of the means at hand to the attainment of the object in view.' They are no longer satisfied with the 'means at hand' but cry out for 'specific means' which it is not in the power of any civilised race to supply. The generals of the French Revolutionary Armies made the same complaint, but under pressure of direct necessity they evolved a man who—by a

readaptation of the 'means at hand' to his purpose—made of its weaknesses, *i.e.* want of drill, discipline, equipment, indeed of everything that in those days was held to constitute efficiency, his greatest strength. That was true military genius and constitutes his title to undying fame. Lee, Jackson, Grant and Sherman achieved almost equal success but with better material, and the road having thus been shown to us I cannot believe that the man will be wanting when the time comes—only his task will be all the easier the greater the numbers with which we can supply him, for numbers alone can generate the 'thought wave' which makes heroes even of the meanest. My scheme would give him those millions of more or less well trained men working all towards a common purpose each can understand; the new scheme offers three hundred thousand striving after what to the vast majority of them must be an incomprehensible ideal, and in the nature of things will probably turn out a false one. Which will our future Leader prefer to command? Let the reader judge.

In conclusion, I would say that where there may appear to be repetition in the following chapters, I have chosen to allow it, because where a certain subject is relative to several others, it seemed to me to make their vital interdependence far clearer, and often the knowledge of this correlation is the soundest asset in the mental wealth of either individuals or nations. To look upon a subject from one, or even two sides only, is a fatal mistake. It is when it can be seen how it is altered itself, or modifies other things, according to circumstances, that it can be adequately used or dealt with. With most people a single statement or assertion is heard merely as a momentary sound and is forgotten. Drum the same into their ears, and at last the repetition convinces them that there is conviction at the back of the reiteration. Of course, some may think and speak of 'parrot cries,' but they will be those who do not care to study the vital questions I have endeavoured to deal with, in the hope that with all its faults and shortcomings, I may in this book succeed in awakening those half asleep to the necessity for vigilance, adequately armed, prepared at all points, and above all, guided by the clear

common sense, as well as the expert knowledge demanded of those faring through difficult ways, in the midst of dangers from within and from without. There is no millennium of Peace for us in this world, for the simple reason that the Nations will never unanimously see eye to eye on any subject. We have acquired responsibilities in the way of Colonial possessions whose interests are interdependent with those of the Motherland, and while we are setting our house at home in order, we have no right to shirk or forget them because they do not come close to our everyday vision. We acquired them because, being a little country in point of space, our sons and daughters must make Britains over seas. Now other countries, in spite of their greater size, are feeling the same necessity for expansion, and if they cannot create, as we have done, successful Colonies, it is possible that they may see the necessity for so crippling us that some day our possessions might fall into their hands ready-made. It is possible to know these things, and to desire a lasting Peace; but it is inept to let this desire weaken all precaution, disarrange all preparation, and sink the Nation in a drowsy content with things 'as they seem,' not as they undoubtedly are. The question is, will the Nation, for the sake of parish-pump politics and penny-wise pound-foolish finance, put aside the matters here dealt with and run the not inconceivable risk of losing all that we have gained, to find ourselves in a worse position than that of Prussia after Jena?

Typhoons do not always give warning of their approach until too late to avert frightful disaster, and if we are ever overwhelmed by invasion and defeat, what will our over-anxious political economists do then? There is unrest throughout the world, and it behoves us to be ready, watchful, and conscious of the responsibilities of our great inheritance.

Note.—I would wish here to record my best thanks to Mr. John Murray for his kind permission to reprint from the 'Monthly Review' of August, 1903, the article which forms the first chapter of my book.

F. N. MAUDE.

May 1907.

CONTENTS

CHAPTER I

SOCIOLOGY WITH REGARD TO MILITARY HISTORY

PAGE

Analogy between War and Disease—suggested research into the Nature of War 2
The struggle for existence; Hillsmen *v.* Plainsmen 3
Danger of internal strife following Peace 4
When War shall cease—Von Moltke's 'The idea of universal Peace is but a dream,' etc. 5
Downfall of feudal Chiefs—Dynastic Wars 6
Downfall of standing Armies—Fighting functions broken down on eve of French Revolution—Experience of Thirty Years' War—War cannot be maintained in desolate country—Cultivators encouraged to stay on their land 7
Reason why the French welcomed invaders—'A nation in arms'—Compulsory service—Seven Years' War 8
Eighteenth-century Patriotism 9
Obligations of common humanity—Essential point of Prussian Army Reform 10
'Mit Gott für König und Vaterland'—Austrian and French miss point of Prussian Reform—Effects of 1870-1 Campaign on German commerce . 11
Establishment of commercial credit after Waterloo—Emergency met on lines of Indian Famine Fund—Eighteenth-century canons of political economy 12
Teaching in the ranks the cornerstone of modern industrial efficiency—'Duty for duty's sake' 13
Military automata passed away at Jena 14
Science the 'Handmaiden of Peace'—By War we won our overseas markets—Science driving us towards a cycle of Wars—The State as a living organism—The clamour for Protection 15
All European nations are interested in ocean-borne commerce—French crusade against the Sultan—Incident of the 'Bundesrath' . . . 16
Similar incidents in France, Russia, United States etc., where Diplomacy fails—Possibility of one race dominating the world 17
By means of War 'fittest' and 'best' become synonymous terms—Suffering of women and children—Advantages of enrolment in Army in case of Continental War 18
Consequences of social ambition compelling men to work 19

CHAPTER II

THE FOUNDATIONS OF HOME DEFENCE

PAGE

War a phase of the struggle for survival—Scientific analysis of Military History—Disappearance of Fortifications—Mobility the primary condition of success 20

The Principle of Short Service—Analogy of specialised organs of attack and defence—The highest point of Military Evolution—Passing from Peace to War instantaneously 21

Highly specialised Prussian Army—Liability to Service arrests all trade—Half male population remains behind—Every nerve must be strained to end campaign at a blow 22

A nation surrounded by sea—Victory minimises check to civil occupations—No Continental nation can afford to relax its readiness for War—An island nation in a position of great advantage . . . 23

Palmerston's 'Steam has bridged the Channel'—Modern War reckons 'surprise' as the greatest moral factor—Will stop at nothing to secure it 24

Risk of surprise—Impossibility that a foreign enemy can see from our point of view—Foreign view of Invasion 25

Victorious resistance to surprise—Attack on beach impossible—Stations of British troops well known to invader 26

Possible dangers from treachery—Humanity in War—Human suffering individual, not cumulative—Foreign views as to Naval Armaments and Dockyards 27

Efficient Army to take advantage of possible hostile negligence—Weakness of Home Service—Ideas prevalent 1840 to '66-'70—Opinions of Duke of Wellington, Sir John Burgoyne, Sir Lintorn Simmons—Consequence of Fashoda incident (note) 28

The fighting potential of an Army—Triumph of Prussian Army . . . 29

Napoleon's disregard of red tape—Prussian Official History . . . 30

Prussian Official History continued—Army of Italy 31

French reorganisation—Permanent Frontier Fortifications . . . 32

General Mercier's 'steam barges'—Invasion of England—Fashoda crisis—Socialism complicates French diplomacy 33

Fall of M. Delcassé—Crowning misery of Prussia in 1812 . . . 34

The danger from France remains—Secrecy of preparations for Invasion . 35

Battlefields in Eastern Counties 36

CHAPTER III

DIFFERENCE OF OPINION AS TO TACTICAL TRAINING

English powers of defence—Clausewitz's fundamental proposition . . 37

Needs of our Over-sea Possessions—Analogy between Commercialism and Army. 38

Contract system of Imperial Defence 39

PAGE
Troops must be available at the right time and place 40
Company Commanders in the Crimea—Lessons from the Crimean War . 41
Death-rate of British Army in India. 42
Unconditional obedience—Sympathy between Army and Nation . . . 43
A modern attack 44
Free volition of the soldier—Reported invisibility of the Boers . . . 45
Moral support of shoulder to shoulder 46
The Napoleonic battle—Napoleon's favourite formula 47
Campaign of 1866 in Bohemia—The Napoleonic battle 48
The skirmisher alone decides 49
Aldershot manœuvres 50
The new shrapnel attack—Training to exercise power of self-control essential 51
Intensity of fire 52
English, French, and German regulations—The spirit of the British Line 53
Lessons of Boer War 54
Decisive Victories alone can end a War 55
Invisibility and fire-power 56

CHAPTER IV

THE FUNCTION OF THE VOLUNTEERS IN PEACE

The function of the Volunteers in Peace 57
English Navy's loss of efficiency 58
The surprise of Sheerness. 59
Duke of Wellington's warning—Lord Overstone's peroration—Revival of Volunteer Force 60
Brighton Easter Monday Reviews—Mahan's great work at psychological moment 61
Volunteers break down—Social barrier between Army and Nation . . 62
The founders of Volunteering bred up in French Revolutionary tradition 63
System of old Light Division 64
The art of command 65
Reversal of tactical theories due to introduction of breech-loaders . . 66
Craufurd's instructions to Light Division 67
Foundation of Staff College in 1860—German 'best evidence'—English 'hearsay' 68
Bow-and-arrow Generals 69
Intelligence of new recruits, and education of officers 70
Volunteer Adjutants 71
'Safer in ranks of well-drilled men than among a rabble' 72
Clausewitz and the British Constitution 73
Military Chaos in Germany after 1870 74
'War is hell' 75
Short service and responsibility 76
Our 'safety valve' 77

CHAPTER V

WHAT BECOMES OF MONEY SPENT ON MILITARY PREPARATIONS?

PAGE

Danger of overstocking 79
Navy and Army the foundations of commercial credit 80
Taxation—Statesmanship is national hygiene 81
Poverty and statistics—The birth-rate 82
The Bluejackets' dietary 83
Survival of the Race—Community of suffering. 84
Strength of the family tie 85
Military History teaches superior sense of Duty 86
Political economy of the Socialists 87
Sequence of cause and effect—Barbarity of Thirty Years' War . . 88
Origin of humanitarianism in War 89
Misery of untrammelled action of 'Laisser faire' School. 90
Arbitration to avert War 91
Pressure of competition—Growth of industrial combinations . . . 92
Military *v.* civilian working parties 93
Discipline and drill 94
Thought and wireless telegraphy 95
Psychological force of cumulative action of many minds—Heroism of General Buller 96
Dense columns the cheapest in the end—Psychology of the art of command 97
All-importance of smartness, *i.e.* concentration—The condition of the untrained mind 98
Justification of the 'March Past' 99
Popular judgment—Quick intuition of women—The professional critic—Collective will-power 100
Bengali Baboos or German Soldiers 101

CHAPTER VI

DOES MILITARY EXPENDITURE PAY?

Prussian 'one-year Volunteers' 103
The training of Recruits—Slowness of promotion 104
The Prussian General Staff 105
Pre-Jena Prussian publications—Thoroughness of German Military Literature 106
The triumph of organised mediocrity 107
Advantages of a Soldier's life—Capable of hard work—resistance to disease—Fathers of healthy children—Concentration of effort . . . 108
Rise of land values in Germany 109
Fortified Cities became death-traps—Dread of invasion removed and revival of public confidence 110

PAGE
Modern industrialism and Military Training 111
Difference between original founders of great businesses and their sons and successors in Germany and Great Britain 112
Contentment and efficiency 113
Hygienic conditions of Military Training render men less liable to disease —Sir Joseph Whitworth's opinion as to the value of Military Training —Increased increment to wealth-producing power of nations . . . 114
Summary of argument for Military Training 115
Test for national investments—Example from railway practice—Method adopted in Germany 116

CHAPTER VII

SOCIALISM IN GERMANY

German Empire enriched by Military Service—Why has Socialism progressed?—Answer: The growth of national wealth is not necessarily national contentment 117
Socialism in Prussia prior to 1870—Universal Service, a conception of the Revolution—Paid Military Substitutes 118
Defects of Conscript Armies 119
The spirit and social conditions of South German Troops 120
Civilismus *v.* Militairismus 121
Absorption of the Forces of the Confederation by the Prussian Army in 1871 122
Antagonism between North and South Germany 123
Development of personal ambition the necessary sequence of the War. . 124
Blackmailing the Reservist 125
Absence of bullying in the German Army—The military 'lawyer' and his tactics 126
Effect of two years' service 127
The trained Soldier is not a Socialist 128
German Non-Commissioned Officers 129
Von der Goltz's 'The Statesman who, seeing War inevitable' etc.—The secret of the strength of the old King, Bismarck, and Moltke . . . 130
Human suffering not cumulative 131
'Expediency' calculated in terms of foreign interference 132
Our dilemma—Free Trade *v.* Protection 133

CHAPTER VIII

THE ARMIES OF FRANCE AND RUSSIA

Cause of present difficulties in French Army 134
After-consequences of French Revolution 135
Hereditary prescription 136
Weakness of French Corps of Officers 137

PAGE
'Videant Consules' 138
The French Infantry in 1887 139
Failure of Promotion from the Ranks 140
Value of Reserve Training 141
Novels that indicate tendency of popular feeling—Racial tendency of the Latin-Gallic to level down 142
Powers of punishment in French Army 143
Soldiers and Socialism—Character the sole qualification for Command . 144
'Psychologie des Foules' 145
The new Napoleon 146
Commercial credit after 1870 147
Johann of Nassau and Machiavelli first advocated Universal Service . 148
The Ordeal of Russian Officers 149
Prediction of Russia's downward path in 1886–7 150
Kouropatkin's services to Russia 151

CHAPTER IX

THE BRITISH ARMY SINCE 1815 TO 1900

Reason why Officers have failed in consecutive Military Study—Want of continuity in our experience 153
Continuity of experience—Lack of great Leaders since Wellington—Invasion might have produced an English Clausewitz 154
Value of sea-power after Waterloo 155
Changes introduced by steam and telegraphs 156
Conversations at the Mess-table—Causes of Prussian decentralization . 157
Inspections in the old Army 158
Evils of the Purchase System 159
Relations between Civil and Military in 1840 160
Influence of India 1840 to 1850 161
The Royal United Service Institution 162
Memory *v.* Reason in Education 163
Triumph of the literary man 164
Breakdown of Long Service—Lessons of the Bohemian Campaign of 1866 and Franco-German of 1870–1 165
The Battle of Short Service 166
Downfall of the Purchase System—Triumph of the pen-and-ink men . . 167
The losses of 1870 not abnormal—Equality of Armament . . . 168
Scharnhorst's immortal principle: 'Teach the Soldier how to die' etc.—The iron of the Umpire's decision 169
Reason why we had no true General Staff—Austro-Prussian and Franco-German Wars a godsend to England 170
Competitive selection not practicable 171
The Staff College and its difficulties 172
Influence of examinations for promotion 173
Reform of Staff College—Volunteer Adjutants 174

PAGE
The sensuous impressions of the Battlefield—Fallacy of 1870 theory, *i.e.* destructive power of the breechloader 175
New and startling phenomena—Adaptability of British Officers . . 176
Futility of normal Frontal Attacks 177
Bulk of expert testimony on Continent—Evil legacy from Boer War . 178
The pendulum of public feeling 179

CHAPTER X

FLEET AND ARMY

Their numerical relation to each other—A sound Military Organization the first condition of National Growth 180
The Naval Problem 181
Superiority of fire-power its best defence 182
Unsuitable ships 183
Nationalization of Merchant Fleets—Impossiblity of utilising time-expired Bluejackets prevents Naval Short Service 184
Evils of unrestricted competition 185
Cost of a great War—Pressure of Defeat and War Indemnities—German Mercantile Marine 186
Advantages of Naval Training 187
The arbitrary ‘ Rule of the Fist ’—Defence of the War Office . . . 188
War Office and editorial problems 189
Example of the Post Office 190
Our building policy 191
New view of Empire—Our advantages in water-borne commerce . . 192
Ocean highway *v.* railways 193
Effects of Victory—The results of Tsushima 194
Economy of Naval Force 195
Rojdestvensky’s Fleet 196
Advantage of numerous Bases 197
Future ‘ Dreadnoughts ’ 198

CHAPTER XI

THE PROBLEM OF INVASION

Our surest guarantee of Peace 200
Hostilities without Declaration of War 201
Von der Goltz’s aphorism on War 202
Influence of steam and telegraphs 203
Extraordinary misconceptions 204
Danger from the Yorkshire Coast 205
Ignorance of true psychology of the Battlefield 206
Our available numbers 207
Appreciation of Auxiliary Forces 208

PAGE
The true function of the Volunteers 209
Retention of ex-Reservists 210
Psychology of Voluntary Service 211
Gen. Sir J. Michell's Modern Tactics 212
Second call for Volunteers in 1900 213
Visible results in a crisis 214

CHAPTER XII

THE PSYCHOLOGY OF DRILL-GROUND TRAINING

Problem of 'hereditary imbecility of Commanding Officers' . . . 216
The 'danger factor' on the Battlefield 217
Evolution of our present Military System 218
Fire-power of Prussian Infantry, 1740–1806 219
Suvaroff's Maxim—Human nature on the Battlefield 220
Obedience or initiative 221
Absolute discipline—Powers of punishment 222
Origin of Military Law 223
Revolutionary Reform of French Army 224
The three essentials of Drill 225
The nature of crowds 226
The hypnotisation of the Drill-ground 227
Concentration of will-power 228
Influence of crowds on individual action 229
Cohesion at any price—Collective will-power 230
English have fought few real 'battles'—Le Bon's interpretation of Clausewitz 231

CHAPTER XIII

THE PSYCHOLOGY OF THE BATTLEFIELD

Last Normal Battle in 1815 233
The independent will-power of the enemy 234
Napoleonic means of paralysing enemy's will 235
Uncertainties of the Battlefield 236
Victory inclines to the resolute leader 237
Napoleon's tactical secret 238
Variableness of Military training 239
Light Infantry—Mounted Infantry 240
Reasons why our Intelligence Service often failed 241
Spirit of community of interests 242
The struggle for survival amongst Nations 243
We are governed by the spirits of our dead 244

PAGE
Vitality of the Churches in England 245
The religious instinct of the Soldier 246
Influence of Board Schools 247
Soldiers as Schoolmasters 248
Children to be taught what Empire means 249
The principles of crowd control 250
The Soul of the Leader—Influence of Commanding Officers . . . 251
Teach the Soldier how to die 252

CHAPTER XIV

VOLUNTARY *versus* COMPULSORY SERVICE

A task for the General Staff 253
The Standard of Endurance 254
Continuity of training with 'Voluntary Service'—The best panacea for unsteadiness 255
Influence of national temperament 256
Meckel's 'Sommernacht's Traum' 257
A battlefield in 1870 258
Hoenig's Winter Days Realities—A reply to Meckel 259
First duty of a Corps Commander—The Battle of Gravelotte . . . 260
Scenes in the Defile of the Mance 261
Chaos in the Mance Ravine 262
First panic of Gravelotte 263
An extraordinary instance of the power of guns (Gnügge's Battery) . . 264
The second panic at Gravelotte 265
Meeting of Le Bœuf and Frossard 266
Third panic at Gravelotte 267
The debacle of the 9th Hussar Reserve 268
The King orders Steinmetz to attack 269
The fights round St. Hubert, and the Great Quarries 270
Final scene of confusion 271
Hoenig's 'Military History contains no parallel case' 272
Dangers of premature attack 273
'System' of more importance than 'Nationality' 274
Dosshouse *versus* Barrack-room 275
The influence of a soldier's surroundings 276
Consequences of compulsion 277
The sanction of military law rests on the tacit consent of the majority . 278
The three classes of Officers 279
The value of Civil Engineers as potential officers 280
A 'Psychic' or a 'Physical' Standard 281
The power of the will over the body 282

CHAPTER XV

THE REGULAR ARMY

PAGE

The value of the mobility of small striking bodies for maintaining peace in India 284
Efficiency varies as the square of the velocity 285
Reorganisation of the Indian Army 286
Undue preponderance of Infantry Officers. 287
The Cavalry the eyes of the Army 288
Influence of danger on character 289
Advantages of a Sapper's training 290
The situation of Canada 291
Value of Port Arthur on Lake Superior as a future Liverpool . . . 292
Canada as an Army training ground 293
The comparative uselessness of our Reserves at home the most striking lesson of the Boer War 294
Regimental Oversea Colonies 295
Regimental Association and Insurance 296
Soldiers' sons the best recruits 297
Suggestions for training Home and Colonial troops 298
The precedent of the 'Royal Reserves' 299
Suggestions for the employment of Reservists and ex-Reservists . . . 300
Difficulties of Command in Volunteer Armies 301
Our resources in Men trained in Regular Army and Auxiliary Forces . . 302
The Principle advocated is Self-adjusting. 303
The Annual cost of a 'Common Sense Army' 304
Special Conditions of our Environment 305
The Cash aspect of successful Military Colonies; their Value as 'ties of Kindred' 306

CHAPTER XVI

ADEQUACY OF AUXILIARY FORCES TO RESIST INVASION

Surprise raids on the East Coast and South Eastern District . . . 308
Defenders' Concentration in Yorkshire 309
Limitations of the Home Defence Force 310
Recoil of the 'Thought Wave' 311
Necessity of studying the Psychology of War 312
General Bonnal on English Officers 313
Numbers of more importance than efficiency in the Volunteers . . . 314
Effect of defeat and resulting panic 315
How to utilise the reflux of the 'Thought Wave' and compel it to useful work 316
Proposal for Volunteer Reserves 317
Lesson of the Napoleonic Campaign of 1796 318
Emergency equipments 319

PAGE
Courage of English women in time of danger 320
Necessary defects in the Invading Force 321
War being 'the struggle for the survival of the fittest' *must* be fought to a finish 322
Organisation of a true 'Striking Force' 323
Effects of blockading Continental ports 324
No caste distinctions in face of the Enemy 325
English instinct of solidarity 326
Why the cry for 'compulsory training' will cease 327

CHAPTER XVII

ESPRIT DE CORPS AND THE VOLUNTEERS

Civil Law depends ultimately on the Soldier 329
Causes of successful Reform 330
Volunteer Drill Halls 331
Secured incomes for Volunteer Battalions 332
Old Age endowment scheme 333
Keeping old Volunteers in touch with their Battalions 334
The secret of our Fighting Power 335
Value of the Englishman's attitude towards his womenkind . . . 336
Evils of our manufacturing towns 337
Mutual respect between the sexes the best guarantee for happy home life. 338
Chivalry needs some kind of an ideal to awaken it 338
Napoleon ignored the women of France, and they brought about his downfall 339

CHAPTER XVIII

THE GENERAL STAFF AND WAR OFFICE ADMINISTRATION

Napoleon's extraordinary genius for detail rendered General Staffs necessary 341
Evolution of Prussian General Staff 342
Curiosities of War Office Selection 343
Difficulties of forming a British General Staff 344
Difference between expert opinion and public opinion founded on sensational headlines 345
A Military Clearing House 346
The Conception and birth of Military handbooks 347
'Die Massendrückebergerthum' 348
Why the old Musket-fire stopped charges better than the breech-loader . 349
Increase of Range weakens Defence 350
Rate of fire of the old smoothbore—Reason why the old squares were unapproachable—The fire-power of modern weapons 351
Increase of range strengthens attack 352

PAGE
Examples from the Russo-Japanese War—The Yalu—Liao Yang . . 353
Staff Rides and War Games 354
Conditions that must be fulfilled by a General Staff—Essential knowledge to be possessed by The Secretary of State for War 355
A National Capital Account 356
The proper commercial machinery for administering the Army . . . 357
War Office Capital Account 358
Military Colonisation of Canada 359
The Inspector General 360
The trained Military common sense of the German people 361

CHAPTER XIX

THE EDUCATION OF THE NATION

The selection of Officers 362
Fallacy of teaching founded on opinion, not on scientific truth . . . 363
Sunstroke prevention 364
Fate of inventors 365
'The Consumer pays' 366
Vital importance of Food Supply in War time 367
Life Insurance Offices and War 368
Means by which cost and storage of food can be reduced, also its distribution difficulty 369
The Crux of our Educational difficulty 370
Dangers of Military drill for undeveloped boys—Elementary field engineering far better for them 371
More outdoor work: less schoolroom 372
Cadet Companies—If action is to follow upon the perception of an idea —etc. 373
Application of differential methods 374
Range-finding—Slowness of average minds to respond to intellectual suggestions 375
The Graphic Method in Military Problems 376
The reconstruction of History—Kenelm Cotes's 'Social and Imperial Life in Great Britain' 377
The Military History Section again 378
'In War the use of force is absolute' 379
Objections to classical education 380
Subjective truth is apt to mislead 381
A clean mind in a healthy body 382
Ignorance of boy-nature in the average writers on Public School Systems —Father Brindle and Mr. Edgehill 383
Character not intellect decides 384
Necessity of a Military History Section 385
No room for initiative of subordinates in modern 'Battle' 386
Emergency Promotions 387
'Our Birthright' 388

CHAPTER XX

BOY BRIGADES—THE MILITIA—CONCLUSION

PAGE

Boy Brigades and the Regimental Districts 389
Regimental Finance Committees 390
The Militia indispensable 391
An Anglo-Russian Collision 392
Mobilisation without the Militia 393
Enlistment must be 'For the War' 394
The Indian Army under Lord Roberts 395
Defects of Lord Kitchener's Scheme 396
The Russo-Prussian Frontier Manœuvres 397
Difficulties in Our Native Army 398
The Press not a Philanthropic Institution 399
The Sikh's view of the Conscript 400
Defects of the New War Office Scheme 401
Effect of a gold panic 402
The Resultant 'thought wave' of a crowd 403
Consequence of shrinkage of credit 404
An Imperial Defence Fund 405
Free Imperial Federation 406
Power of Government to Control Food prices 406
Dangers of a *too* Regular Army 407
Confidence in Victory the Keystone of Credit 408
The Fashoda panic in the Isle of Wight 409
The Consequences of Surrender 410
Where could our Emigrants go? 411
No regeneration possible for us after defeat 412

APPENDIX

Narrative and Outline of War-Game for the Northern Command . . 413

DIAGRAMS AND MAP

(*At end of Volume*)

I. Diagram showing numbers Medically Inspected and Annually Enlisted, 1850-1904, in Regular Army.

II. Diagram—Recruits Raised for all Branches of the Services.

III. Diagram showing number of Men legally bound to serve in Army and Navy.

IV. Fig. 1, Diagram showing Rate of Fire of Weapons Individually, and number of Bullets per Yard Delivered by normal Fighting Line per Minute. Fig. 2, Diagram showing Losses per Hour at various Periods from typical Infantry Battles.

V. Diagram—Fig. 3 showing Relation of Attack and Defence and its Dependence on Mobility during the last three Centuries. Figs. 1 and 5 illustrating Principle of Napoleonic Strategy. Fig. 4, Influence of Increase in Range on Tactics.

MAP

INVASION OF YORKSHIRE

WAR AND THE WORLD'S LIFE

CHAPTER I

WAR AND THE WORLD'S LIFE

Nothing has tended to retard the progress of Sociology more than the resolute refusal of its principal exponents to recognise the true influence that War has exerted in the evolution of national character.

Philosophers and closet students have turned with loathing from the carnage and suffering which inevitably follow in its train. They have allowed their minds to be imposed upon by a conception of cumulative human misery which has blinded them to the true proportions of its evils, and its resultant consequences for good. We admit the polarity between good and evil, between darkness and light. Let us admit that the opposition, Peace and War, is only another phase in the great duel between Ormuz and Ahriman, and note what follows.

If it were only from the ranks of the avowed Materialists (who deny everything except what their more or less imperfect weighing and recording instruments can detect) that the outcry against War and all its evils arose, the circumstance would be both comprehensible and consistent with their whole train of thought. When, however, it is principally the humanitarians and the clergy who are normally the most eloquent against its horrors and iniquities, one feels inclined to remind them of the text that 'not a sparrow falls to the ground,' etc., and to ask whether the part the Almighty plays as Omniscient Ruler of the Universe has not escaped their attention.

We all of us alike, Materialists and Christians, admit that pestilence, disease, and so forth, can best be fought by obedience to the laws of Nature. Further, we all know that the actual suffering these scourges entail, whether viewed individually or collectively, far exceeds the slaughter[1] and agony inflicted on any battlefield. Is it pushing analogy too far to suggest that a study of War and its evolution might lead us to a similar conclusion, and show us the road by which its evils can at least be minimised?

So little interest, however, do we take in the subject that at present there is not, to my knowledge, one single work in the English language (and not more than three in either French or German) which even begins to put us on the track of the systematic inquiry we so distinctly need.

Is it not time to suggest that if the same proportionate amount of attention had been directed to research into the true moral causes which underlie the open manifestations of national antipathy which we call 'War,' as has been devoted to the study of diseases—such as cholera, malarial fever, plague, and in fact, all those scourges whose existence is known to be due to the presence of a parasitic 'bacillus' as *causa causans*—we might have found the moral bacillus whose presence equally determines an outbreak of hostilities; and possibly some practicable method of combating it?

I think it is. Thirty years' study of military literature, and the ample opportunities for reflection, which I owe to causes unnecessary to specify here, have convinced me that War is to the body politic what fever is to the individual. It owes its existence to the presence of the microbe of moral impurity—*i.e.* 'corruption' in its widest meaning—in the nation affected. Let us trace from the beginning the action of this impurity and its cleansing fever—War.

If we study the course of human evolution we find everywhere indications of the fact, that 'War' throughout has

[1] A curious illustration of the above statement is the fact that the deaths attributed to influenza in Germany in 1891 exactly equalled the total number of those killed, or who died of their wounds, in the German Army in 1870. Note also the constant death rate from scarlet fever, consumption, etc. etc., and toll of life and limb exacted by industrial occupations.

been the master force welding together clans, tribes, and communities. At first man's need of combined action against the attacks of wild animals drove individuals into groups, and led to a differentiation of duties amongst their constituent units; some to watch and scout, others to fight, and again others to till the ground.

When, after centuries of this struggle for existence between man and nature, districts had been cleared and cultivated, and prosperity began to result in accumulations of wealth in the plains and lowlands, the attraction of the potential plunder these settlements presented brought down upon them the predatory raids of their less favoured human brethren. These were the dwellers in the hills. Their faculties of watchfulness had not been sharpened, nor had their confidence in one another been welded, to the same degree as had that of the inhabitants of the plains, owing to the relative absence of dangerous animal enemies amongst the mountains.[1]

Existence in the agricultural settlements, on the other hand, was only possible on the condition that one portion of the population stood on guard whilst the others worked in the fields. There was always the chance that an attack might fall on a given point in the perimeter of defence and overwhelm it by force of numbers. To prevent this the guards would have to fight to the last extremity in order to allow their comrades sufficient time to come up to their support. It was in this manner that the idea of self-sacrifice for the good of the community first had its origin as the bed-rock foundation of the soldier's calling.

In course of time, as the plainsmen acquired a fuller sense of the superiority over their assailants that this mutual confidence between man and man had given them, it became obvious that it was a more economical employment of the

[1] The huger enemies of cultivation—the elephant, the mammoth, the rhinoceros, and the pack-hunting animals, wolves, wild dogs, etc., never frequented the mountains, whereas the soft-skinned animals—which hunted individually and consequently required less watchfulness, or power of combination on the part of the human inhabitants against them—such as the bear, hill lions, tigers, leopards, infested the hills. Against these men could fight almost single-handed with success.

human energy available to follow the marauding hillmen into their native fastnesses and attempt to destroy them root and branch.[1] After many generations of struggle this mutual confidence engendered amongst the plainsmen told against the individually finer physique of the mountaineers, because of their lack of the habit of watchfulness. Consequently the latter were more or less subdued, and for a time rendered ineffective.

Whilst this period of punitive warfare continued, the settled inhabitants of the lowlands, fully realising the all-importance of maintaining the efficiency of their defenders, willingly contributed towards finding them both arms and subsistence as payment for service rendered. For the time being they were the national heroes, and the best of everything, including the women, was freely at their disposal. But when the danger of attack from outside drifted further away, as a consequence of their victories, their value became less obvious to the civilian members of the tribe, and the rights of the individual began to be asserted against the good of the community. The 'stay-at-homes' had by this time accumulated private wealth, thanks to the security afforded them by the exertions of the fighting men, and they now began to grudge the soldier his share of the enhanced standard of comfort his valour alone had rendered possible. The women went to the richest, not to the bravest; the bad leaven of individualism began to work and to produce its usual crop of evils.

The soldiers, however, still had arms in their possession, and were thus able to revolt against this shortsighted injustice. While internal strife, then, was weakening the strength of the tribe, and external watchfulness was neglected, the hillmen, recovering from their disasters and the normal course of nature, and shrewdly seizing advantage and opportunity, swooped down from their mountains. Then the more civilised community was either 'eaten up'—to use the expressive Zulu phrase—or was once more welded into unity under pressure of external warfare.

[1] Roman *versus* Celt, Sikh *versus* Afghan,—always a repetition of the same story.

Riding along the Punjab frontier, and over the plains of the North West Provinces, through the ruins of ancient Delhi, and on to Agra and Gwalior, one can trace this action, and reaction, over and over again in small and great communities. The whole culminates in the final downfall of all Native Empire under pressure of the British Invasion. This sequence of events has been similar all over the globe. Modified slightly, but unessentially, by local conditions, *e.g.* sea instead of land frontiers, it has shown everywhere the same phenomenon of 'polarity,' individualism degenerating into licence and corruption when not held in check by the stern lesson of war. This is the lesson which teaches the noblest of all virtues to the whole nation, the duty of individual self-sacrifice for the good of the community, which is 'collectivism' in its highest form.

'Greater love hath no man than this, that a man lay down his life for his friend,' and we know by the example of Christ in how wide a sense he understood the word 'friend.'

When 'envy, hatred, malice, and all uncharitableness' shall have ceased among nations and individuals, then, and then only, 'shall wars cease in all the world.' This was the thought present in von Moltke's mind when he wrote: 'The idea of universal Peace is but a dream, and not even a beautiful dream'; for he understood how hopeless was the expectation that human nature could be perfected (without War) into archangelic content and altruism. He knew also how little men can resist the selfish and corroding influences of prolonged Peace.

War must be accepted as a phenomenon in the life of a nation strictly analogous to disease in that of an individual, an incident in the 'struggle for national existence.' It must be endured as nobly as may be when it comes, but it must be guarded against by every rational exercise of our intellectual powers, and the development of all possible means of defence. It must be remembered that, just as a sharp attack of illness, successfully passed through, often renders a man stronger than before, by reason of the elimination of certain evil humours from the body, which were sapping his constitution, so War clears away the foulness of the body national and politic, and

its renewed life is thereafter stronger in proportion as the ordeal has been drastic.

In the geological record of evolution we can trace the gradual elimination of purely defensive adaptations of the body, such as the carapace of the turtle family, the scaly skins of the saurians, etc., and the survival of those species in which mobility, and the power of combined action in packs, have proved successful in displacing the gigantic, slow-moving quadrupeds of the past. In a similar way will rapidity of action and intelligence tell in the struggle for survival between the human races. In the animal world the types which survive are those in which the happiest balance has been struck between activity, intelligence, and endurance, and in which teeth, claws, limbs, and muscles are equally well adapted for attack, defence, or sustenance. The whole animal, or pack, is most likely to survive when all these faculties are at their best, as a consequence of sound food and healthy exercise of all its, or their, several functions. In like manner that nation will best encounter the risks and dangers of War in which the means of attack, defence, and the procuration of sustenance, stand in proper proportion one to the other, and are more or less interchangeable (not specialised) in their functions.

The history of the continent of Europe during the past eight centuries illustrates this tendency in a very marked degree. Until the downfall of the great feudal chiefs, the houses or clans which could both cultivate their lands and plunder their neighbours 'ate up' those who could fight but not cultivate, or cultivate but not fight. The former were driven into the mountains, and the latter placed themselves under the protection of the most powerful of the barons. By this process of accretion the great dynasties of the Continent, and of England, arose.

Then came the period of Dynastic Wars, and that State was most successful (other things being equal) in which the fighting elements of the community, for the time being highly specialised, bore due relation to the amount of food produced by the country. The nation which endeavoured to keep on foot a force disproportionate to its source of supply ultimately

succumbed to the consequences of a disorganised treasury. Problems of food-supply, not of tactics or strategy, have been the final conditioning factors in the fate of nations.

The attempts at specialisation of the fighting functions had virtually broken down all over the Continent of Europe on the eve of the French Revolution. No state could support armies numerically adequate for the defence of its frontiers within the limits conditioned by the nature and extent of its food-growing resources. Prussia, which for a time had maintained proportionately the largest standing Army, had frankly abandoned the attempt; two-thirds of her effectives being furloughed indefinitely, to be called up for a month's training only every year.[1] In France, this experiment was impossible owing to the seething ferment of disaffection, due to overtaxation throughout the kingdom. In Germany proper, the Reichsarmee existed only on paper, and in Austria and Italy affairs were much the same. Still, in all cases, the Army remained a specialised caste, absolutely divorced from the civil population, with which it had no sympathy whatever.

The current civilian sentiment throughout Europe towards the close of the eighteenth century held the soldier as a useless unproductive drone, equally offensive, whatever the colour of the uniform he wore. The cost of his maintenance was regarded as a heavy burden on the honest citizen, which, since it could not be cured, must be endured more or less sullenly. This sentiment had arisen, curiously, out of the very measures which monarchs had taken everywhere in order to render the burden of armies as bearable as possible to their people.

The experience of the Thirty Years' War proved, if proof were necessary, that in the existing conditions of communications, warlike operations, offensive or defensive, could not be maintained in a desolate country. Hence, throughout the century, every effort had been made (even whilst War was in progress) to encourage the cultivators to stay on their land

[1] See Max Jähns, *Geschichte der Kriegswissenschaften*, also *Roszbach u. Jena* (von der Goltz), *Urkundliche Forschungen zur Geschichte des Preuszischen Heeres*, Berlin, 1904–7.

and provide for the commissariat requirements of the Army.[1] This was necessary, because the further a force penetrated from its own frontiers the more difficult became the problem of feeding it. The invaders often (indeed generally) treated the inhabitants better than their own soldiers, for on these latter usually fell the disagreeable task of driving off the cattle and destroying all available supplies. The soldiers thus came to be looked on as oppressors of the citizens, not as their defenders. It is easy to see that it is to this perverted sense of the whole nature of War that the astounding alacrity of civilians of the lower classes throughout Western Europe to welcome the French invaders (not by any means the least important cause of Gallic successes) was primarily due. We, in England, are not even yet entirely free from this cant.

The French Revolution, however, effected an entire transformation. France, threatened by all the standing armies of Europe, saw that the days of specialisation were past, and she gave us the first modern illustration of a 'Nation in Arms.' Numbers and brute force now confronted the specialised organs of defence, and the latter failed because, the condition of environment having changed, they had largely atrophied from disuse, and could no longer adapt themselves to their altered conditions. A very short period of French exactions and cruelty sufficed to teach all civilians their forgotten duties as integral units of the body politic. Within less than twenty years' time France found herself confronted by, not one, but many 'Nations in Arms,' for all Europe, except England, had had to accept the principle of compulsory service. It was not universal—hence all subsequent trouble.

In the period of the Seven Years' War armies lived by their magazines, and every possible effort was made to spare the civilian element as much as was practicable. The fate of nations was decided in encounters between picked champions of the contending countries, whose numbers were small in proportion to the whole population. The entire tendency of the tactics of the time was to economise, to the utmost extent which the conditions of armament permitted, the sacrifice of life which armed collision invariably involves. Battles were

[1] *Geist u. Stoff im Modernen Krieg*, by C. von B. K. Vienna.

like duels between two skilled fencers, ultimately decided by a single thrust.

In the last years of the Napoleonic epoch the fighting was mere bludgeon work—a gradual attrition of the two armies, one against the other, and the balance in hand next morning generally determined the final result. Weight of numbers, accumulated by forced marches, in which more men fell than on the battlefields, bore down the opposition of the trained specialists. These numbers could only be supplied under conditions that rendered their conversion into drilled soldiers [1] (as the term had been previously understood) an absolute impossibility. This becomes evident when we remember that the proportion of the population required could only be spared for a very short time from productive employment.

Sociologically considered, the interest of the Consulate and Empire centres in the evolution of the sentiment of patriotism and nationality. Previously the patriotism of the great masses of European populations had been bounded strictly by the limit of every man's visible horizon, from the summit of his own village steeple. He would defend his own hearthstone, and combine for this purpose with his neighbours, sometimes, but not always. But the need of wider combination, the fact that the best defence was to concentrate all efforts on the destruction of the foe beyond the frontier line, was altogether too much for his powers of comprehension. Indeed, in the absence of a properly organised police for the protection of life and property, and of that practical Christianity which cares for the sick and necessitous, he could not afford to take a wider view. In his absence, who would care for wife and family? He dare not leave them to the mercy of the tax-gatherer, or of his feudal lords. All over the continent of Europe these latter had forgotten that, if property has its rights, it has also its solemn duties and responsibilities.

Whatever its faults may have been, the Revolution at least removed this restraint, and developed the instinct of co-opera-

[1] It took two years and cost about 100*l.* sterling to train a soldier fit to stand in the ranks in Frederick the Great's time. Napoleon's men often had less than two months' training, and that of a most inferior description.

tion between man and man, family and family, as perhaps no other less drastic method could have done. In the terrible and widespread suffering it evoked, people turned to one another, in their mutual distress, and frankly accepted the obligations of a common humanity. Danton, Marat, and Robespierre have much to answer for, certainly, but they gave practical Christianity all over Europe the chance it most sorely needed. Who that has familiarised himself with the social conditions of the peasantry and the lower classes of the townspeople during the twenty years preceding the Revolution, will maintain that Europe was not in need of such a lesson?

Though the gate towards such great reforms was thus at last thrown open to the world, the nations came in grudgingly. Only Prussia, which had suffered most severely, saw the fulness of the promise and seized it with a unanimity of national effort that in Europe has never been surpassed. The State swept feudalism aside, educated the people, and, in return, exacted from every able-bodied man three years of his life in military service, absolutely without regard to caste distinctions. Though all the other nations, except Russia, did something to weaken the burdens of feudalism, they omitted universal education, and, by a system of paid substitutes for military service, they perpetuated the divorce between the civilian and the soldier throughout their countries.

The essential point in the Prussian reform lay in this, that henceforth no man in that kingdom could afford to remain idle. Other countries also drove the bulk of their aristocracy into the commissioned ranks, but once they had them there they could not make them work. In Prussia, because intelligent men of all classes served in the ranks side by side, the officer dare not neglect his work, on pain of being judged by his equals in society, and of being made to suffer for his ignorance, or want of tact, or temper. If the young Graf von Z., serving as a private, found that his Lieutenant was an ignorant, bad-tempered bully, the fact was pretty sure to get about. If, again, the officer tried to curry favour with his social equals or superiors at the expense of his comrades, equally the knowledge spread abroad, and in

both cases his future was certain to suffer materially. I do not suggest that life in the Prussian Army has at any time been ideal, but I do assert, from personal knowledge, that relatively to their respective stages of civilisation, the treatment of the Prussian soldier, since 1815, has at all times been fairer and more humane than in any other Army. The fact is proved by the very high standard of discipline maintained, together with the extraordinary absence of military crime, which has so long distinguished it [1]

The Austrians, the minor German States, and France, all missed the essential point of this Prussian reform. They all omitted to educate their people; they retained their men seven years with the colours as against the three years of the Prussian Army, thus making them lose touch with civil life too completely. Again, by encouraging the system of paid substitutes, they removed from their officers the best incentive to excel in their work (as instructors of the men they were one day to lead in battle) that the wit of man has hitherto succeeded in devising. The world has been sufficiently familiarised with the consequences of this fatal mistake by the disasters of Sadowa, of Gravelotte, and of Sedan. It was not to superior armament that the Prussians owed their victories in the two last-named fights. The advantage in this respect lay with the French entirely. It was the Prussian soldier's devotion to 'duty for duty's sake' which won the day, and found its highest expression in their battle cry: 'Mit Gott für König und Vaterland.' In practice, this devotion sent the troops into the field well found in all essentials, each man knowing his duty to his comrades, and striving loyally to fulfil it to the utmost, at all risks to himself.

The war of 1870 was scarcely over before Germany, her unity and her frontiers secured, broke out on a path of phenomenal commercial expansion, which increased enormously the standard of comfort throughout her dominions. The end of this is not yet, but the germ of it is to be found in Scharnhorst's original draft of her Military Reform in 1808. This was confessedly an expedient to meet a special

[1] See *infra* Chapter II.

emergency, the incidence of which, on modern industrial evolution, it was at the time impossible to forecast.

After Waterloo the need of the moment in Germany had been to re-establish commercial credit, and rescue the population from impending starvation. Of how imminent this danger really was, we in England have very little conception.

The Army met the emergency precisely on the lines of our Indian Famine Relief funds. The ranks absorbed a certain portion of the male population, while their needs, in the shape of uniforms, boots, equipment, etc., gave employment to thousands. Food for the men and forage for some 80,000 horses kept acres under profitable cultivation, and the Government contracts, which all this involved, steadied the markets, and prevented reckless speculation.

It is true that heavy taxation was the consequence, but the money gained was circulated throughout the country, and found profitable employment for hundreds of thousands who otherwise must have starved. The wealth of the country at all times centred in her agriculture, but it is little good ploughing and planting the fields if no one has either money or credit to buy their produce from the farmers. It is only necessary to strike off the acres kept specially to feed the cavalry horses to realise how the landowners would have been hit, and how terribly the process of accumulation would have been hampered by this action. But accumulation there must be before modern industry becomes possible.

Money taken for taxation must come out of some one's pocket ultimately, and be met by increment from somewhere. In this case there was only a certain very moderate amount of bullion in circulation, and the increment came from the rise in value of the agricultural property, consequent on the certain market its products found. The same coins went round and round in the mill, but with increase in national and individual credit they did a larger share of work. In 1816 it would have been difficult to raise money on land at 10 per cent. Fifty years later any amount could be had at 5 per cent.[1]

[1] For a detailed investigation of this aspect of the question see 'Voluntary *v.* Compulsory Service,' by the Author. Published by Mr. Stanford, 1897.

According to the eighteenth century canons of political economy, the three years of a man's life spent with the colours would be classed as a waste of human labour. But this view took no account of the changed conditions of barrack life which the new Army system was about to introduce. It is only, indeed, within the last ten years that it has begun to dawn upon us, here in England, that military training under hygienic conditions (always above the average of those under which the recruit has hitherto existed) adds more years of usefulness to a man's life at the other end than it takes off from the beginning. Neither was it, nor could it be, foreseen, when Adam Smith and his followers first arose, that the sense of duty (the essence of a man's whole teaching in the ranks) would presently become the very corner-stone of modern industrial efficiency.

That this is the case an example from our every-day railway work will suffice to show. As the traveller is whirled towards London in a flying express, his life is dependent, at least twenty times in every second, on the sense of duty existing in every one of the countless railway servants who are responsible for every bolt and key along the permanent way, for every signal by the roadside, and for every lever and rivet of the locomotive. The men are grouped in gangs; over every gang is a foreman; over the foremen come the locomotive, permanent way, and station superintendents, etc., up to the responsible general manager of the whole system. Theoretically the chain is perfect, but in practice those who know most of the matter are only too well aware of its many weaknesses. These are due to the fallibility of the human machine; for, however carefully each man's duty may be laid down on paper, emergencies will arise which can only be met by intelligence on the spot. This intelligence cannot be relied upon to work at all unless each man is animated by a living sense of the duty he owes to his fellow men, and is ready to sacrifice himself in its discharge if an emergency arises.[1]

The same holds good of all industrial undertakings, and

[1] The great Railway strike in Italy in 1903 is a sufficiently striking example. Each man undertook to obey the letter of his duties only, and the whole system at once broke down.

in proportion to their magnitude, the strain on the sense of 'duty for duty's sake' on each individual waxes ever greater. In small businesses the personality of the head of the firm, the promptitude with which grievances can be heard and redressed, and misunderstandings avoided by direct interference, all help to induce the workman to put out his best efforts. But when the numbers employed swell to the magnitude of considerable armies the sources of friction are multiplied in a corresponding degree (almost in geometric progression), and the workmen, in the interests of their whole class, need the habit of patient self-control and ready obedience to authority that Army service so excellently teaches.

It must be noted, too, as very essential to the argument, that neither in modern industry nor in modern armies does blind obedience alone suffice. The day of the 'military automata' passed away for ever out of European armies as the sun went down on the field of Jena. The new system of tactics, which everywhere resulted from the seed sown by the French Revolution, exacted from the soldier identically the same qualities of intelligent adaptability which form the keystone of commercial success.

This is another instance of the polarity inherent in all problems of warfare, and one which has never attracted the attention from civilians that it deserves. Chiefly, no doubt, this arises because the Army itself has been riven into two parties on the study of the problem which, from its exceeding difficulty, defies exact solution. But it must be clear to even the superficial reader that, just as emergencies may arise in industrial operations—railway work, for example—which no written instructions could foresee, and in which a man must unhesitatingly act on his own initiative, so, in every battle, situations must occur in which the soldier, too, must adapt himself to formidable contingencies, and act on his own responsibility. For the last century, more or less according to whichever party in the Army was in the ascendant, this education of the intelligence of the individual soldier in the ranks has been everywhere the aim and object of the 'School of the Light Infantry Soldier.'

Thus it happened that, when the victories of 1866 and

1870 finally removed all reasonable fear of invasion, Germany presented an almost unequalled field for industrial investors, good security, and an abundance of willing, intelligent, and disciplined labour. And all this was the natural consequence of her well-designed military machinery. Her progress since then has been phenomenal, and to-day she stands the example of the most firmly knit nation, certainly of the continent, perhaps in all the world. But that the future alone can decide.

We in the British Isles, thanks to our acquired position as Mistress of the Seas, arrived at a similar stage of national solidarity at an earlier date, and by less drastic suffering, for we have been spared so far the horrors of invasion. The net result of the past hundred and fifty years of warfare throughout Europe has been to break down everywhere the barriers of purely local and provincial sentiment, and to substitute for this narrow creed certain well-defined national groups, held together, each within its own frontier, by the conception of a common nationality and a common patriotism. Science has contributed enormously to forge the links which make this improved sentiment possible; but eventually it is War and conquest which alone caused this evolution of industrial science.

By War we won our over-sea markets, and consequently a demand for our manufactures. War brought the gold into the country needed to develop them; finally, our security from invasion enabled us to pursue the paths of invention in Peace. France may reasonably lay claim to scientific pre-eminence during the latter half of the eighteenth century, but of what avail was her fame in this respect during the social upheaval of the Great Revolution?

It is the custom at the present moment to represent Science as the handmaiden of Peace, and to speak of her beneficent influence. The simile is unfortunate, to say the least of it. 'Handmaidens' have been the origin of strife from the earliest times, and in the present case seem likely to continue the process.

It is Science, and Science alone, that supplies the power now daily driving us towards a cycle of Wars. Without its

application the sentiment of nationality could not manifest itself. But for its inventions, which have created artificial wants, the trade-hunger of the nations, now impelling us towards armed collision, would never have been awakened. We are all familiar with the conception of the State as a living organism, with its nerves, nerve-centres, veins, and arteries. The telegraphs and cables are the nerves; the congested great cities the ganglia; the Railways and Steamship Lines the arteries; what the blood is to the animal frame, trade is to the social organism; and gold may represent its corpuscles. Following up this analogy, we see the great nations everywhere busily thrusting out their claws, now to Manchuria, again to Persia, Cochin China, Africa, South America; and wherever these claws pierce and set up inflammation (that of rivalry), the phagocyctes, so to speak, rush in, or are held ready to repel the invasion.

A century ago, continental over-sea colonists travelled at their own risks. Their number was so insignificant, and their operations so restricted, that individual successes or failures passed unnoticed in the mother countries, all of which were in those days self-supporting. Now, with the growth of their population, and the rise in the standard of material comfort, together with the general reduction in distance as measured by time, there is not a single nation in Europe that does not believe itself more or less interested in ocean-borne commerce, or which is not endeavouring to compete with the existing holders of the market.

Formerly their citizens were satisfied if the Government maintained order and law within their own dominions sufficiently to allow them to pursue their business in peace. Now they clamour for protection in every quarter of the globe, and demand the interference of diplomacy to collect ordinary civil debts. (As in the last 'crusade' of France against the Sultan, for instance.)[1] So keenly alive are they becoming to the advantages of their foreign trade that, almost without exception, they consent to taxation, in order to benefit their firms of ocean-carriers, and the tendency everywhere points towards the nationalisation of external trade.

[1] Threat to send a fleet to enforce payment of a contractor's debt in 1900.

How this evolution may endanger the maintenance of Peace has been demonstrated only recently by the incident of the 'Bundesrath,'[1] in which, in the exercise of our acknowledged rights as belligerents, we were compelled to stop and search a German merchant steamer. A small matter, indeed, compared with the seizure of British ships in French ports by the Germans in 1870, but amply sufficient to have precipitated a War between the two nations had the Germans possessed a Fleet strong enough to cope with the British Navy. Had such been the case, I fancy Count von Bülow would have found himself face to face with one of those outbursts of popular indignation with which, as he told the Reichstag in 1898, modern statesmen are quite unable to contend. He would probably have yielded without resistance to its pressure, with what results the event alone could have decided.

Of similar incidents between ourselves, France, Russia, the United States, in Siam, West Africa, Madagascar, Egypt, Morocco, China, and Venezuela, there have been quite enough and to spare during the last ten years, and the tendency is for these causes of friction to multiply rather than to diminish. Sooner or later this friction will clog the diplomatic machinery, and War will follow with the usual result, that the stronger will eat up the weaker. A slumber of exhaustion will ensue; then the same forces will bring about renewed disturbances of equilibrium, and the cycle will be repeated until, perhaps, one race alone dominates the world. Shall we then be any nearer to the Ideal of Peace we are all professedly striving after? I confess I doubt it. All history shows us that once the external pressure of threatening danger is removed, individualism having again full play, the struggle for existence within the race itself will have fuller scope. Here the internal condition of the United States, with the growing misery of the weaker, and the automatic increase of wealth amongst the stronger, gives us an indication of what we have to expect.

Remove the barriers to internal friction which prevail everywhere in Europe in the shape of Armies, and the same

[1] During the Boer War, 1899.

result would reappear. The 'fittest' would survive, the weaker go to the wall. But the 'fittest' at the present moment are not the men who give up their lives and renounce all luxury for the privilege of finding a soldier's death on the battlefield, or who do their work in the hospitals, in the churches, and everywhere where human misery is to be alleviated or removed. No! In the present day, the so-called 'fittest' to adapt themselves to the conditions of our present environment are a very different class; and, unless, as I believe, War is the divinely appointed means by which the environment may be readjusted until ethically 'fittest' and 'best' become synonymous, the outlook for the human race is too pitiable for words.

'Peace on earth—goodwill towards men.' That is our ideal. May it not be that peace is promised us as a condition of goodwill, and is only attainable when, through community of suffering nobly borne, goodwill towards men shall universally prevail?

It is a curious fact to note, that though the main object of all great commanders, and of all disciplined Armies, has been to preserve as far as possible the enemy's women and children from suffering—until at length their care and preservation have actually hampered the operations in the field—the inexorable pressure of evolution has rendered it certain that in the future they will suffer the most.

Whilst improvement in weapons has everywhere led to an enormous reduction in the actual slaughter in the field, and must continue to do so in the future, for reasons well known to every military thinker, it is the women who, deprived of their bread-winners, really suffer most severely from the prolongation of the decision. And this protraction of the decision is due to the nature of modern armaments and the prevalence of mistaken notions of humanity. In the case of a great War between Great Britain and a continental Power (which must of necessity send up the price of bread at least fourfold), it will not be the able-bodied manhood of the country who will feel the pinch. Food, clothing, and a roof over their heads, will be available for all who will enrol themselves on the side of law and order in the ranks of the Army. But

what of the women and children when there are no 'Absent-minded Beggar' funds to draw upon, and no rich ratepayers to contribute to them even should they exist?

I am no cynic, still less a misogynist, but there is no closing eyes to the fact that social ambition, which is the driving-power compelling men to work (as we see it in the United States especially), long after their own desires are satisfied, is essentially a woman's weakness which the wheels of God are now in motion to crush, and which we, with all our efforts, are proving powerless to check.

CHAPTER II

THE FOUNDATIONS OF HOME DEFENCE

If then 'War' is merely another phase of the 'struggle for the survival of the fittest,' we may expect to find the analogy still further persisting in the history of its evolution. It follows, therefore, that if throughout its record we meet with the same laws perpetually recurring, the inference is reasonable that by pursuing them in the future we shall consciously develop an ideal, within the limits imposed by our surroundings, towards the attainment of an organisation best suited to our needs.

This slow modification of growth in accordance with the law of survival is exactly what we do find in Military History, when it is subjected to scientific analysis. As in the natural world we see the heavy slow-moving organisms everywhere giving way before mobility and intelligence, so in the records of the warfare of the past we find stationary defences, *i.e.* fortifications, armour and brute strength, disappearing gradually before mobility and intentional combination. Nowadays, fortifications in Western Europe have become almost things of the past, and rapidity of movement, as in the recent South African War, constitutes the primary condition of success.[1]

As in the animal world the exact adjustment of the several qualities varies with the topographical surroundings and similar factors, so in War the climate, theatre of operations, and so forth, mark the local limit of useful variation. Nevertheless throughout all three the principle remains the same—that higher mobility enables Armies to cover wider areas from whence they can draw more or better sustenance, while the wider area and the greater capacity for exertion (the conse-

[1] See diagram V., fig. 3, and note in Appendix.

quence of good food conditions) give intelligence scope for more effective combinations.

In the lower forms of life, the nervous and arterial systems are undeveloped and vitality is not centred. You can cut a worm into pieces and they will grow together again, but in the higher forms—where vitality is centred in the heart, brain, and main arteries—injury to either of the former can paralyse the whole. Thus a severed artery may mean death by loss of blood. Again analogy holds good,—nations in their earliest stages might be dispersed but could not be destroyed, but modern civilisations may be bled to death by interrupted communications or paralysed by a blow at the combined heart and brain, the Capital from which is controlled the action of their complete machinery.

In the lower forms, again, the organs of attack and defence are specialised and do not contribute directly to the acquisition of the means of subsistence; in the highest of the solitary hunters, the lion or tiger, every organ is equally adapted both to fighting and securing food, while they always attack, and never stand on the passive defensive.

Nations have hardly reached this highest form as yet, but the tendency towards movement in this direction is strongly pronounced. Only a couple of centuries ago, the land Armies were most highly specialised for fighting while they were useless as food producers;[1] now they are far less specialised owing to shorter service, and only the minimum number, necessary to train adequately the whole able-bodied population, is temporarily withdrawn from productive labour. These return later on, better fitted by such training and a life spent under relatively good hygienic conditions, to undertake the common task. Now between Nations of equal population, the highest point of evolution would be reached by the one which could pass instantaneously from Peace to a War footing. If this were the case it could hurl itself, with the full energy of every unit which goes to constitute the mass, upon its rival, precisely as in the cat tribe, the individual passes in a moment from its stealthy hunting approach to its full fighting activity.

[1] *Vide* Chapter I. pp. 6 and 7.

Prussia is a striking instance in point. One hundred and fifty years ago its Army was the most highly specialised in existence. Step by step it evolved one the least specialised compatible with efficiency, and in 1866 and 1870 defeated Nations of greater resources and more specialised Armies by the rapidity of its onslaught.

There is another point of curious resemblance to note. When an animal fights it does so with the whole energy of every muscle and nerve in its body. For the time being it is compelled to exist on its previously acquired stock of vital capital—it has no organs or feelers capable of adding fresh sustenance whilst the struggle rages, and ultimately between fairly matched antagonists, condition, *i.e.* previous diet, tells.

As Nations approach nearer and nearer to this type the same phenomenon makes its appearance. In theory at least, the moment the order to mobilise flashes round the country, every able-bodied man from 17 to 45 years of age becomes liable for military service, and should forthwith leave the workshops and offices of civil life and step into his appointed place in the fighting organisation—*thus arresting all trade within the country.* In practice things are not yet pushed to such extremes. Roughly one-half of the male population takes up arms, leaving the remainder to carry on the daily work of the Nation. *But it is important to realise that the half which remains contains all the poorest elements of the community.* These consist of men originally rejected by the Army on the score of physical inefficiency, and they are *rendered relatively all the less useful for industrial purposes for want of the two years of physical and moral training* which the *selected have enjoyed.* And these—the selected—have to leave their work all standing, whatever responsible positions they may be holding; it is evident that the task of fitting new men of lower quality into their places must enormously derange all industrial occupations.

The longer the stress the worse the confusion, and an initial disaster, by shaking the national credit, may push the evil to complete stagnation. *Hence every nerve must be strained to end the campaign at a blow.* Hence also all the strategy and tactics of the contending forces must be

evolved in accordance with *the supreme necessity of the moment*, viz. *victory at any cost, so that civil occupations may suffer the least possible interruption in time.* If not, it will happen that even though there may be money enough in the country to buy, there will presently be nothing to sell, and the Nation will become as dependent on foreign imports for the necessaries of life as would be a blockaded city.

This is what has happened to every Continental nation in time of prolonged War. But in the present state of highly developed commercial relations, the condition that resulted all over Europe at the beginning of the last century, after several years of fighting, *may well be reached nowadays in as many weeks. No Continental nation, therefore, can afford to relax its efforts towards immediate readiness.* Now, almost in precise proportion to the thoroughness of its organisation, is its greater gain in time of Peace, *i.e.* the more productive does the capital sunk in its military preparations become.

For the moment I must beg the reader to accept this proposition as true of any two or more Nations facing each other under practically identical conditions across a land frontier. But the situation is materially altered when a strip of water, large enough to require ships for its passage, intervenes between the would-be combatants. Then the idea of the irresistible onrush of masses must be abandoned, and other steps must be taken to surmount this difficulty.

It follows, therefore, that a Nation surrounded on all sides by the sea is placed in a position of great advantage. For, though to end a War once begun, she too must strain every nerve and muscle towards this purpose, the transition from a Peace to a War footing need not be so abrupt, and, consequently, need not be so injurious to her commercial interests.

The details of this organisation must, of course, depend on the width of the channel which separates the antagonists, and their relative maritime resources; but, since there is but one island, or group of islands, in which we are interested, we can pass at once to the concrete case.

When Lord Palmerston declared that 'steam has bridged the Channel,' he indulged in an exaggeration which has incalculably augmented the difficulties of our position. On the one hand the phrase frightened the timid, on the other it went so ludicrously beyond what the facts justified, that for years it has split the Nation into two rival camps, whose differences of opinion even now are far from being adjusted, and between which two stools (to alter the simile) the British nation has several times been perilously near coming to the ground.

What steam and the telegraph really have done has been to shorten very materially the distance between our island and the mainland, *as measured in time*, and it is from that proposition as a basis, that our fighting organisation should have been built up.

The sea is no longer quite the insurmountable barrier our forefathers found it. It is no longer necessary for our enemies to betray their designs by the accumulation of white-tented cities in full view of our watchers, or to crowd their ports and rivers months beforehand with thousands of flat-bottomed transports.[1] Not a man now need stir from his barrack square till some twelve hours before the critical moment. Railways, steam, and the telegraph will ensure that all troops and their requisite transport will find each other at the allotted places for embarkation. Then, given six to eight hours' law, and in reasonable weather, upwards of 150,000 men can easily be thrown upon our shores. Now it must be evident that it does not pass the wit of man to devise some method by means of which these six to eight hours can be assured as free of interruption from our Fleet for the invader. Finally, it must be remembered, that modern War reckons on 'surprise' as the greatest of all moral factors, *and it will stop at nothing to secure it.*

I am well aware of all the stock arguments on our side against such surprise invasions. I am fully convinced that, if our possible enemies could see the matter from our point of view, with full knowledge, not merely of our paper arrange-

[1] See Desbrières' *Projets et Tentatives de Debarquement aux Iles Britanniques*, Paris, 1901.

ments to meet them (which knowledge they doubtless possess), but of the spirit with which they will be put into execution, our danger would be very small indeed. But I also know—and it is a formidable *But*—from direct observation, and from much intercourse with foreign Staff Officers who now hold responsible positions, that it is utterly impossible for men trained in their school of thought to transfer themselves to our point of view. History, if it teaches anything, teaches that it is precisely from this, and similar incongruity of opinion, that wars have most frequently resulted, for how often in the past would not Peace have been maintained had Nations realised beforehand the hopelessness of their cause? Would France have gone to War in 1870, had she been able to foresee the future? Would the Transvaal have fought us in 1899, had Kruger possessed the gift of prophecy?

This particular point is so important for us to realise, that I venture to present the foreign view at considerable length. I only premise that the arguments I advance have been quoted to me by men who have studied Military History with a thoroughness and a grasp of principle as much above our Staff College standard as the views of the Tübingen school of Divinity are above those of the ordinary itinerant street preacher.

Primarily they lay down that the passage of a river or arm of the sea depends essentially on the possibility of surprise. The greater the width the greater the facilities for surprise, for it is obviously easier to concentrate troops in Atlantic liners on an unforeseen spot than in ordinary row boats on a river. Again, the wider the river the greater the chances of a secret concentration, and whereas in a river darkness, or fog only, can hide the destination of a flotilla—out of sight of land a fleet can go where it pleases. Then, if invasion is resisted, the guns of the escorting ships can prepare the way for the landing of troops with a fire out of all proportion, greater than ordinary field pieces could possibly develop. Further, our possible Continental opponents point, in support of their position, to the uniform success which has attended our own operations in the past.

Our reply is that our command of the sea alone conditioned these attempts.[1] Their answer is that safety of communications and security of retreat, though both excellent in themselves, must be considered in relation to the magnitude of the stakes at issue. Also that though a broken bridge may isolate an Army as effectively as an ocean—neither Napoleon, nor even many merely average commanders, have in practice hesitated to incur such risk if the game was worth the candle. The difficulties of the passage of the Rhine by Jourdan in 1794 at Neuwied, when the Austrians held all the craft on the right bank of the river, were far more serious than those entailed by a short sea passage nowadays, but the attempt proved successful nevertheless. The risks Napoleon ran in 1809 when the Austrians broke the bridges behind him at the island of Lobau, did not deter him from fighting, and ending the campaign, on the field of Wagram. In later years the Prussians crossed the Alsen-sund in boats, notwithstanding the risk of the return of the Danish fleet which held the seas. In 1877 the Russians crossed the Danube though Turkish ironclads were still in the river. Finally, Napoleon's whole plan of attack against England in 1805 was based on the determination to sacrifice his communications, and let the result depend on the consequences of the capture of London.

Moreover, the direct defence—*i.e.* victorious resistance to a surprise attack on the beach itself—of a long river or coast line is impossible. The utmost that can be done is to station reserves in rear of it in positions whence they can be rapidly concentrated to give decisive battle. *And the longer the line the further inland must the place of concentration be placed.*

The stations of the British troops being well known to the invader beforehand, it is a simple calculation of time and space for him to show that it is impossible to concentrate them in time between London and the south-east coast to oppose to him a sufficient resistance. For the thirty-six hours needed to traverse the distance from Hastings to the suburbs, the invader believes that he can live on the contents of his knapsacks.

[1] Note our landings on the American coast, in France, the Peninsula, Egypt, West Africa, etc.

Once in London, it is certain that men with arms in their hands need not starve. The British Fleet can come back when it pleases. Either the Government tumbles to pieces (as the invader expects that it will) or he will kill, burn and destroy until the country finds it convenient to accept his conditions. Humanity has no place in War, *for human suffering is not collective, but individual.*

If Napoleon could so far fail to enter into the spirit of our race as to believe that the occupation of our Capital would bring with it national surrender, is it to be wondered at if hundreds of men infinitely his inferior in sagacity and statecraft should be equally deluded nowadays? Especially when civilisation and commerce are far more complex, and the means of interfering with our plans for concentration by tampering with railways and telegraph wires, and by acts of incendiarism in or near our dockyards and arsenals, are so easy to arrange. The malcontent Irishman we had always with us, but he had no dynamite in 1803–5, and there were no herds of foreign reserve men in plain clothes ostensibly on business in our principal towns.[1]

To foreigners holding these views it is useless to talk of augmented naval armaments. It seems as easy to them (and indeed it is, we see it directly when we apply the argument to others) to paralyse the action of fifty ships in a dockyard as of five. It is well to remember that the only matters which appeal to the well-informed foreign officer are troops, and their certain presence in a known locality. If, as I submit is the case, the primary purpose of our fighting forces is to keep the Peace, not to invite others to break it, we have here an unassailable basis of bedrock foundation on which to erect our military defences, viz. the redistribution of our troops in such a manner as to make it *quite certain that London cannot be reached from the coast except over their bodies.*

Once it becomes apparent that the fighting line must be

[1] Von Wrangel's proposal for the destruction of Woolwich Arsenal should not be forgotten. Sir F. Maurice's forthcoming book will throw light on this. Also note probable numbers of Germans in West Riding towns, etc. who could be concentrated on London or elsewhere in a few hours, and facilities for introducing ammunition into this country secretly disclosed by recent discoveries of cartridges in Sunderland, Newcastle, Edinburgh, etc.

backed by heavy trains of ammunition waggons, and time found for all the delays incidental to a great general action, no foreign commander could be found to consider the game worth the candle. It must be seen, therefore, that it is precisely at this point that our present danger lies, for as our troops are now distributed and organised no European commander would care to convict himself of incompetence and negligence by refusing to accept the risks, as they stand, which an invasion of our coasts would entail. If the Army is not ready for such an expedition then it ought to be, and unless it can be shown that the Chambers have refused the necessary credits,[1] the responsibility for inefficiency rests on the man whose duty it was to make the Army efficient for its special and obvious purpose, viz. *to take every advantage which the negligence of a possible antagonist offers to it.*

Moreover, the facts of the case are not open to dispute. The intrinsic weakness of our distribution of Home service troops has been revealed in countless War games played at the Staff College and elsewhere. But the reason why this knowledge has never been acted upon deserves more than a passing mention. It is a most striking instance of the consequences of the want of scientific method with which our military affairs are habitually handled, and it reveals a weakness which is certain to continue until scientific training takes its proper place in our system of National education.

From 1840 up to the years 1866–1870, the idea of the danger of a sudden raid on our coasts was constantly before our Military advisers. The Duke of Wellington, Sir John Burgoyne, Sir Lintorn Simmons, and others all duly recognised it. Then came the triumphs of the Prussian Army,

[1] After the Fashoda incident General Mercier, then War Minister in France, put forward a project before the Chambers for the construction of a fleet of some six hundred steam barges for the express purpose of a descent on our coast. The money necessary was refused, as no doubt he expected. It was, therefore, open to him, if called on by a Civilian Government to direct an attempt at invasion to be made, to point out that the requisite preparations not having been made, on behalf of the Army he could not accept the responsibility of advising it.

obviously very largely due to the perfection of its organisation. Quietly and with due deliberation on each occasion Prussia had mobilised her forces, and had not attempted to strike until she was really ready. The nature of the theatre of War, of her Army and communications, all rendered such a course the only one expedient under the circumstances.

Her enemies, Austria and France, whose armies, with their larger Peace contingents, had always been considered as relatively more ready for action, *hesitated to strike and were defeated.* Then at once all their troubles were laid at the door of 'unreadiness.' No one stopped to enquire whether 'unreadiness' is an 'absolute' or merely 'relative' condition.

Actually, the term is merely relative. Any body of men, even a local rifle-club, with arms in their hands and cartridges in their pockets possesses a certain fighting potential. It is very limited indeed at first, but it increases daily as drill develops their individual courage, and organisation supplies their defects in equipment, until finally discipline, confidence in their leader, and the love of their country, have forged and welded them into a more or less ideal force. But at every moment throughout this gradual process of evolution, armed men possess a certain degree of fighting power, which may be successfully employed under suitable circumstances. This, I take it, is the principal lesson Napoleon taught us, viz. when to strike even with inferior materials. All else, in the way of military knowledge, had been known before, but in Europe, at any rate, no one but Napoleon had realised *the potential powers of even a half-armed ragged mob when handled by a great Leader of Men.*[1]

But this is a point which the conventional, professional soldier invariably overlooks. His whole being is so fettered by daily attention to details (of great importance certainly when rightly understood, but not always absolutely essential to the immediate purpose), that he loses all sense of proportion and at length cannot see the wood for the trees. For instance, troops cannot keep the field for more than a week without certain stores duly laid down in regulations; the

[1] See de Cugnac's *L'Armée de Reserve*, 1800, also Col. Furze on *Marengo and Hohenlinden*, and *The Evolution of Modern Strategy*, by the Author.

stores are wanting; so he reports his unit as unready to march, not realising that it is perhaps only a question of a couple of days before the decision is given one way or the other. Water bottles are lacking in another unit, cooking-pans in a third, and so on. He forgets, or does not know, that troops have both marched and conquered without these accessories, but the regulations say they are necessary, and so he hesitates to accept the responsibility of ordering the troops to march without them.

It is in the overcoming of these, and similar internal resistances, that the real strength of character and determination of a great Leader asserts itself. But just such a man was wanting on the French side in July 1870, and waiting for ambulances, cholera belts, coffee and cooking pots the unfortunate Rhine Army let its opportunities slide by.

August came and with it the overwhelming onset of the German Armies, but had the Great Napoleon (not his nephew) with Berthier and his old Corps Commanders been at the head of the French Armies, the French would have marched, deficient cook-pots notwithstanding, and a single success, for which as we now know the Prussians offered the French many chances,[1] might have changed the whole face of Europe. In which case we should have been copying the French Képi, instead of the German 'Pickelhaube.'

In the full flush of their victories, the Prussian Headquarters Staff published, on very insufficient evidence as it now turns out, an Official History of their operations, and again as a consequence of our want of scientific training our Army Reformers all rushed to its pages to learn the secret of their success. I now know—I did not then—that an Engineer always goes first to the failures to learn the true secrets of constructional strength. A bridge which stands reveals nothing. One that breaks shows you where and why it failed. Had I possessed this knowledge earlier I might have saved myself long weary years of wading with many others through most unpromising morasses and confusion. But light came

[1] See detailed studies of the situations worked out by Bonnal, Foch, and in the French Official history of 1870; note also studies by Verdy du Vernois and Cardinal von Widdern on the other side.

to me at length by a series of accidents, and I learnt that whilst we in England were studying the German history as a model for our imitation, in Berlin they were using it as an awful example to know what to avoid. Whilst we were admiring the beautiful vessel on her trial trip, they had seen the machinery from the inside and knew where the tubes leaked and the bearings heated; and they did not intend to undergo such an experience again. The whole gist of the first part of the Prussian Official History is to place in the most striking contrast the advantages of their own system of mobilisation, and to show up the complete breakdown and confusion on the French side. This they were able to do by the aid of captured documents, which, given singly and without adequate comment, certainly appear damaging enough, particularly to superficial students of military history. But considered only as isolated aberrations occurring in a mass of many thousands, and contrasted with messages and telegrams [1] which have passed under similar circumstances in other Armies, they by no means justify the conclusion of absolute unreadiness for action which they are intended to supply. On the contrary, it becomes evident that the French Army of 1870 was well found, and in comparative luxury, compared to the 'Army of Italy' in 1796, or the 'Army of Reserve' in 1800. Also in so far as its unreadiness really is proved against it, it was due to defects of administration, which should have been detected and exposed by proper inspection, and not to any mistake in principle.

It was, however, a long time before this conclusion was reached. Meanwhile enthusiastic admirers had been flooding the market with strategical disquisitions, which, going far beyond their model, asserted that of all possible errors in the conduct of operations, no worse one could be conceived than the commencement of hostilities without awaiting the arrival of reserves. These effusions being duly translated into English were received as fundamental axioms of the new

[1] *Vide* Verdy du Vernois: *Events on the Frontier in July* 1870. At noon on August 3, we find Moltke at Mainz telegraphing for news as to what had happened at Saarbrücken in the combat of the previous day. At the same place there were neither pioneers' tools, high explosives, nor maps of the country.

faith in which, through the medium of the Staff College and Garrison Instructors, the whole of our Army was to be trained.

Almost before the ink of these translations had dried on the presses, a new emergency arose upon the French frontiers, and it became necessary to seriously reconsider this opinion.

Like ourselves, the French adopted as a cardinal point in their reorganisation, the principle of complete mobilisation before hostilities. Owing to their peculiar political conditions, and their railway system which rendered the simplicity of German arrangements unattainable, it was evident from the first that they would require some days longer to effect this purpose. In order, therefore, to gain time, they closed up the frontier with a most formidable line of permanent fortifications capable at all times of restraining Cavalry raids, but needing, like all permanent work, some days' labour during the early stages of mobilisation, before they would be fit to defend against regular siege operations. This prospect of delay and spade-work was fatal to the whole German plan of organisation, which had never been framed in contemplation of the protracted operations a series of sieges must have entailed. To avoid this necessity they determined to throw overboard the whole principle of mobilisation before hostilities, raised the effectives of all units in their Frontier Corps, and determined to carry by assault during the first forty-eight hours of the War those defences it was necessary for them to secure, relying on the necessarily unfinished and partly armed condition in which permanent works invariably are maintained, and the confusion inseparable from mobilisation, to facilitate their design.

The complete details of this scheme came into my possession in 1887, and, at the time, speaking with full knowledge of the ground, I have no doubt it would have succeeded. In what year the French awoke to the danger resulting from this decision I am not aware, but five years afterwards, on my return from India, I found that they too had followed the German lead, had increased the strength of their frontier units, and had generally accepted the principle that every body of troops as it lies in barracks must be ready in an

emergency to turn out as a fighting unit at a moment's notice. It would be but a small one indeed, but an efficient one, within the compass of its size.

Now, for a special purpose, such as a descent on our coasts and a rapid march to London, there can be no doubt that small units, *i.e.* companies and four-gun batteries, with only professional officers to lead them, and no reserves to shake down into their places, would be far more suitable than War-strength companies, whose greater numbers are really only needed to meet the waste of prolonged operations; and it is the possibility at any moment of concentrating numbers of these handy and well-trained units on any desired section of the coast-line which has for years constituted our true danger. Hitherto, we have failed to realise it, because, pinning our faith on the Prussian Official History, we still believe hostilities to be impossible without previous mobilisation. If our enemy will be obliging enough to give us a fortnight's warning, neither Fleet nor Army is likely to fail to meet him. But since readiness for War in France grows automatically out of her established system of defence, I fail to find any reason to presume that she will be as dilatory as we desire her to be. I find confirmation for my opinion in General Mercier's proposal to the Chambers to supply a flotilla of steam barges for the express purpose of invading England; also in the confidence with which France stood up to us, alone, in the Fashoda crisis. Had she intended to give us three weeks' warning of her designs she would hardly have 'bluffed' us so resolutely on such a weak hand.

In any case it is the duty of the French Staff to have prepared everything for this emergency, and we have no right to assume that those officers entrusted with our section of their frontiers have been less assiduous in their labours than we know their comrades to have been in the case of her eastern borders.

In spite of the present satisfactory state of our relations with France I still lay especial strength on the danger from that quarter. That the French nation, if free to express its real convictions, would prefer alliance with England to being led at the heels of Germany, may be at once conceded; but,

unfortunately, thanks to the spread of Socialistic doctrines within her Army, she is not free to follow her inclinations.

The whole end and aim of German policy, since the idea of a Franco-British understanding was first broached, has been to demonstrate to the French their danger if they persist in their friendship with us, and the recent crisis in Morocco was engineered from the Wilhelmstrasse solely with that object in view.[1]

The provocation of the ultimatum which brought about the fall of M. Delcassé was meant to bring home to the French politicians a sense of the danger of their position, and, at the same time, to test their confidence in their own Army to protect them. It was well known in Berlin that the French General Staff felt quite equal to accepting the challenge, but it was necessary to ascertain whether the politicians felt they would have the country behind them or not, and the resignation of M. Delcassé proved the point.

Henceforward, it is known in Berlin that the people of France—not the Army—dare not face a single-handed contest, and every effort is being made to bring home to the people the utter worthlessness of an alliance with a nation whose 'ironclads cannot climb hills,'[2] and whose Army, on the showing of its War Ministers and Commanders-in-Chief, is in need of a biennial reorganisation from the foundations to its roof.

It must never be forgotten that the crowning misery of Prussia was not Jena, but the year 1812, when Prussian troops were compelled to march to Russia at Napoleon's command. Sedan atoned for Jena, but the remainder of the debt is still undischarged, and no true Prussian of the real fighting race of that Monarchy will ever feel that the sufferings of his ancestors are avenged until the situation has been reversed, and French troops march at the bidding of the Hohenzollerns.

Each year as by the methods of the reptile Press the

[1] Comments on Sir Henry Campbell-Bannerman's article in the *Nation* February 1907, in the French Press of March 2, 3, and 4, 1907.

[2] This view is also held by most of the French General Staff—see General Bonnal's *La Prochaine Guerre*, for 1906.

loyalty of the Army in France becomes more and more undermined by the Socialistic propaganda, this consummation draws nearer, and we shall be weak, indeed, if we allow ourselves to trust in the assistance of an ally whose security we can do so little to protect, for it must be remembered that the Continental 'crowd' is by instinct and training quite incapable of appreciating the real potential strength our Navy can exert.

'The shirt is nearer to the body than the coat,' as an old German proverb has it, and our Peace-at-any-price party and Hague conference enthusiasts will have much blood to answer for before many years are over.

The French danger remains, therefore, the principal one to be guarded against, for their frontier is the nearest, and is the only one from which, as a consequence of its nearness in point of time, a serious surprise can be sprung on us.

When the time is ripe, Germany will call on France to join her in an attack upon England, and that invitation France must accept on pain of seeing her own frontiers overrun by German troops before England could bring more than a couple of Army Corps to her assistance. The French General Staff calculate that the first great battle of the next War on their eastern frontier must be decided within twenty to twenty-five days from the first day of mobilisation, and that, if defeated, they will have to abandon practically all the country north of the Loire, before accepting a great decision again.

That such a surprise is possible is proved by the secrecy with which the General Staff of that Army moved up ten Army Corps for the defence of the eastern frontiers in the crisis above alluded to. The whole ten reached their appointed position, ready, as regards all essentials, to fight at a moment's notice, without a word of notice leaking out to the British Press, and, I am credibly informed, our Government remained in equal ignorance likewise.

Five Corps might as easily and unostentatiously have been moved to the coast between St. Malo and Dunkirk, and a fine summer's night would have sufficed for the rest.

Now I am quite open to allow that, with our unrivalled means of communication, we might rail down troops enough

to defeat even such an attempt, but I am perfectly certain that no Continental Staff would admit the possibility of such a concentration. They would apply their own scale of time to the railway problem involved, and the answer would of necessity be in the negative.

The possibility of a misunderstanding is, therefore, always open, and it cannot be too frequently reiterated; it is precisely from such misunderstandings that War arises. The possibility invites the attempt, and the attempt, even if it failed within ten miles of the French coast, would mean a long and bloody War continued until the exhaustion of one or other of the combatants compelled its submission.

To close this gap for misunderstandings is, therefore, the first necessity, and this I submit could easily be done by the selection and preparation of a 'battlefield'—not of an entrenched position—between London and the Southern Coast, and the grouping of certain units upon it in such manner that, no matter when the attack might fall, a sufficient covering force should be actually on the ground, with ammunition and food in their pouches, to fight a retaining action to gain time for the remainder of the troops to concentrate.

Ultimately it may be necessary to select similar battlefields in the Eastern Counties and in Yorkshire.[1] The expenses would be small, and could be met by realising a portion of the many thousand acres now owned by the War Office in other parts of the country, which the march of events has rendered no longer suitable for their purpose.

[1] See also Chapter XV.

CHAPTER III

DIFFERENCE OF OPINION AS TO METHODS OF TACTICAL TRAINING

English differences of tactical training, as compared with Germany and France, came into being after 1870–71. Germany and France having noted their own tactical errors during that War have, in time, corrected their tactical and strategic training in order that such errors may in future be avoided. England having absorbed the accounts of that campaign, and having drawn early and erroneous deductions therefrom, has been unable to argue any further from the data before her, and wishes to perpetuate the training based on those conclusions, supplemented by modifications suggested by the late Boer War. She apparently believes that every nation will henceforward fight under the same tactical conditions as prevailed in South Africa in 1899, 1900, and 1901.

The true cause of the very low estimate formed by foreign, especially German, expert military opinion as to our powers of defence, is undoubtedly to be found in the excessive importance attached by all parties in the House of Commons to the question of mere numbers shown on the active list of the Army. To them the spectacle of the governing minds of a great nation engaged in higgling over whether the Empire can be defended by 200,000 men or by 220,000, reveals a condition of public ignorance as to the true nature of warfare little above the standard of the Middle Ages. For them the question was settled once for all on the field of Jena, and afterwards definitely formulated by Clausewitz in the first part of his immortal book on 'War,' wherein he lays down the fundamental proposition that no organisation can be satisfactory which does not provide for the employment of every available man, horse, and gun, at the decisive place

and time for action; for the greater the power deployed the sooner the resistance will be overcome, and the 'waste' of War reduced to the smallest dimensions.

As a broad generalisation from existing Continental conditions the position is not arguable, for history furnishes too many overwhelming proofs, and practically all the nations of Europe have paid heed to its warning. But in practice the principle is surrounded by limitations, and except in the simplest cases, as between European nations under nearly equal conditions, it is difficult to draw the line between the relative advantages of numbers and efficiency.

In our case the problem is infinitely complicated by the needs of our Oversea possessions, which from time to time necessitate the despatch of forces varying from a cruiser's landing party, to the equivalent, as in South Africa, of ten Continental Army Corps, against enemies of every degree of efficiency, and under climatic and topographic conditions of every conceivable variety.

South African expeditions are very much the exception, and the smaller ones, in other parts of the Empire, the rule; moreover, never since the British Army has existed, has the fate of the Empire depended directly on the result of a single battle. Hence, since our people have never been forced into direct sympathy with a beaten Army, and have neither personal nor traditional knowledge of all that defeat entails, they have come to regard the events of a campaign as predictable, in much the same manner as any commercial undertaking. The construction of a railway, for instance, is a good example; so many miles to make at a given rate per day, needing so many men and costing so many millions, its completion guaranteed on a given date, with a fine for every day in excess; and the idea exists at the back of every commercial mind, that the best course for the Government when called on to subdue a recalcitrant tribe, or extort damages for a murdered missionary, would be to call on General Officers for tenders, and to accept the lowest from 'a firm' of acknowledged standing. Actually this was the customary method all over mediæval Europe, until it broke down before Frederic the Great's genius, and it sur-

vived in our own country within my own memory. If it does not linger still in the minds of civilian military critics, then all recent Army criticism in Parliament, and the Press, has no meaning whatever.

Essentially all this criticism amounts to an appeal to someone—either the Secretary of State, or a private individual—to produce a plan for the defence of the Empire, by the fewest possible men at the least possible cost, ignoring altogether the action and reaction which takes place between the Army and the Nation, and their mutual effect on each other's ultimate efficiency.

How deeply rooted this impression is, viz. that War is an exact science, every step of which can be foreseen and arranged for in advance, is shown by the admiration lavished on our Commanders, of whom correspondents and indiscreet friends allege that they have correctly predicted, before leaving England, the place and date of their decisive battles. I do not presume to question the fact that such statements have been made, but I do know for certain that few things have tended to lower the foreign prestige of our leaders more than the credence attached to such rumours. Every Staff in Europe has adopted Moltke's apothegm, 'Only the layman believes that he can trace, throughout the course of a campaign, the prosecution of an original plan arranged beforehand in all its details, and observed to the very close of operations,'[1] and its members know very well that all such prediction is impossible against an enemy possessing an independent will power fairly equal to one's own. For the possible circumstances which in our own case render such prediction reasonable, they do not make, and are from defect of imagination incapable of making, any allowance at all.

The fundamental fallacy underlying this idea of the defence of the Empire on the contract system has its root in the extraordinary and widespread ignorance of the details of Military practice (the price we pay for our escape from compulsory Military Service) which prevails amongst the electors, and consequently amongst their representatives. To them a

[1] *Prussian Official History of* 1870–71, vol. i. p. 50 (English translation).

'Battalion' is a 'Battalion,' capable of doing the same amount of work wherever stationed or however trained; and the same holds good of similar units of the other arms. They do not realise that the value of any fighting force is a 'relative' value only, conditioned not merely by the quality and nature of the troops to which it is opposed, but by countless other factors, within the body itself, which vary from day to day and even from hour to hour. Still less do they understand that an Army trained exclusively to fight, let us say, the Boers, might require to be quadrupled in numbers to face a European enemy; and finally, reverting to the point made in the last chapter, the essential fact remains that not only must the men be provided but they must be available at the right time and at the right place also. 50,000 well-mounted men on the Boer frontiers would have averted the War which 400,000 men and 200,000,000*l.* barely succeeded in bringing to a satisfactory conclusion.

Assuming, however, all these difficulties reconciled, and a definite strength for our Army arrived at, who is to guarantee its efficiency? Competent inspectors, is the reply which springs pat to the politician's lips. But who is the ultimate judge of the Inspector's competency? Here we reach again the root of the whole evil, for, in the present unscientific chaos of Military opinion, we have no one who really commands public confidence, and if we had such a man public ignorance would compel his resignation forthwith, because 'against stupidity even the gods fight in vain.'

Fifty years ago the public took no interest in Military matters, the Army itself was the sole judge of its tactical efficiency, and the Alma, Inkerman and Balaclava showed that, as far as the individual exertions of men and Officers could go, the units were well up to the Continental standard of the time, indeed superior to it. The faults they disclosed were those inherent in the nature of the Long service, Peace-trained Armies of all nations in which economy, not efficiency, is the prevailing spirit.

Our deployment at the Alma may have been slow, that was only to be expected from troops never trained, from motives of economy, to work in large bodies. The Advance

Guard and Main Body lost touch with one another in the celebrated Flank march round Mackenzie's Farm—again a fault due to want of manœuvre-training—and the charge of the Light Brigade might have been better prepared, better timed, and better supported. The blame lies on the same shoulders, those of the politicians who controlled and curtailed all Military estimates, but the fighting of the troops on the whole was admirable. Even when Brigades, Regiments and Companies were all intermingled, green jackets and red coats side by side stormed the great battery on the causeway at the Alma; and when, in the fog and confusion of the Inkerman surprise, all order and cohesion was lost, Company Commanders and Subalterns held their men together and accepted responsibility quite in the modern spirit. As for the courage and the execution with which the Heavy and Light Brigades respectively rode home against desperate odds, no word of carping criticism has ever been suggested.

Death was the same then as it is to-day, and wounds considerably more agonising, whilst the fate of the wounded was also very much worse, yet the men stood up to their work without flinching, against a storm of bullets[1] many times greater than any we have been called upon to face in South Africa, and no one wrote to the papers to explain how battles were to be won without bloodshed.

But there had been no connecting link between the Army and the Nation. The Army was still a specialised organ of offence, which had atrophied through disuse, and not all the bitterness of the Nation's complaints could force healthy blood and supplies through the congested arteries to its relief. There were no reserves behind it, and no mechanism by which all its manifested needs could be promptly and adequately supplied, the nation could not put out its full fighting strength at the required time and place, and hence the Army's sufferings could not avert the gravest humiliation to the country at large.

[1] I have taken the plans in Todtleben's defence of Sebastopol and calculated from them the total number of bullets our several assaults on the Redan had to face per minute of time; it was many times greater than the worst we had to endure in South Africa.

The Mutiny presented a similar spectacle. Men and officers rising most nobly to the emergency, but the nation again incapable of supplying adequate and timely reinforcements, because in the sacred name of 'economy' the very heart-strings of efficiency had been severed.

In the years preceding the Crimea the death-rate of the British Army at home was about 22 per thousand, now it is about 4 per mille. In India in Peace time it averaged over 60 per thousand, now it is barely 15; and each of the men who died needlessly in those days was worth double the money to the country that they cost us now. Is it credible, if the Nation had understood its best interests, that no one could have been found to suggest a way in which to eliminate this excessive cost, and to secure greater efficiency? The solution was as open to us then as it is now; but it was killed by national ignorance and apathy, and by nothing else.

Nowadays we have indeed altered all this. The public is awake to the smallest of the private soldier's grievances. He is to be fed, housed, and clothed on a scale far above the average of the class from which he springs; and in moderation the tendency is wholly admirable. But are we really getting a more efficient fighting man?

The answer, I fear, can only be in the negative, and the cause now is the excess of public interest which leads sincere, but wholly misinformed, persons to interfere in details they have never been trained to understand.

This mere assertion can carry but little weight, and the full proof cannot be advanced at the present moment. All I can attempt here is to indicate briefly the broad principles that have recently been neglected. Since the earliest times it has been recognised that to win battles it is necessary to kill, or at least frighten, the enemy, faster and more effectually than he can kill or frighten you. This purpose has been best attained by the General's combination of all the destructive agencies at his disposal at the right time and place; and the unconditional obedience of every subordinate, within his proper sphere, has been the primary condition of his Leader's success.

This unconditional obedience, though the ideal to be aimed at suffers natural limitations due to the assertions of human nature in all ranks, will be greater or less according to the degree of confidence felt in the Leader. In times when War was chronic under uniform conditions, the Generals usually obtained it to a far higher degree than is nowadays possible; orders were obeyed without question, because the presumption was that since it is not, and never was, to the interest of a Leader to allow his men to be uselessly butchered, his orders were the best possible under the circumstances, or they would not have been given. Also the public never counted the cost when the result was successful.

Nowadays, sympathy between the Army and the Nation having at length been established, without, however, what should be its correlative—adequate knowledge—there is an immediate outcry over every casualty which cannot be explained to the satisfaction of the surviving relations. If Private John Smith or Thomas Atkins is hurt, every Smith or Atkins who can trace blood relationship to the sufferer either writes to the papers or to his parliamentary representative calling attention to the crass imbecility of the General, or any other officer whom he holds to be responsible. War correspondents take the matter up, exaggerate the incidents to meet the public demand for sensation, and generally convey the impression that if their advice had been followed the results might have been very different; as, indeed, they often might be in an opposite sense. It is in this way that the conviction grows up in the public mind that our Generals and officers are a set of incapables, and the private soldier the true arbiter of the battlefield.

Such a conviction, too widely spread, soon threatens danger to the existing Government; so a few Generals without political interest are sacrificed as scapegoats. Then a new book on Infantry training (not drill) is hurriedly rushed through the press; the effect of which, if logically carried out, must be to render victory for our Infantry in the future absolutely impossible, for it deprives the General of all power of effective combination of effort, and compels him to dribble out his troops, when at length in presence of the enemy, in such a

manner that each individual soldier must find himself confronted by an overwhelming numerical superiority of from ten to twenty of the enemy at the decisive point of the fight.

That the above is no exaggeration may be seen by considering the appearance that a modern attack across the open presents from the defender's side; and it must be remembered that the defender will take every care that the ground to his front should be as open as possible.

First come a line of little moving dots, each some ten to fifteen paces apart from the other. These are saluted by the fire of an unbroken line—either single or double rank—and presently one little dot drops and then another, till at length the whole lie down and begin a fire duel with the men in front of them. But what can isolated private soldiers, however brave, do against odds of ten to one; the ten under artificial cover and knowing their ranges beforehand? Then another little line appears, and shares the same fate as its predecessor, and then a third, and so on, until at length the whole plain is dotted, as at the Modder River, with lines of men lying down behind any convenient bit of cover available, quite incapable of concerted movement, and unable to move individually without bringing upon themselves a perfect hailstorm of bullets from the many rifles on the other side, only waiting for a target to fire at. This was the special point made by all correspondents, and all letters from private soldiers and officers at the front that appeared in the papers, viz. the utter impossibility of moving once they had been compelled to lie down. But neither they nor their readers noticed that this was no new thing, but merely a recapitulation of the experience of every skirmishing attack in the past when compelled to leave cover and cross the open against a superior fire. As far as the sensations of individuals are concerned, they must have been equally unpleasant whatever the nature of the bullets employed or the range at which they were fired.

Under the old Peninsular regulations a General was free to employ whatever method suited the local conditions best. If the ground was broken and intersected, he threw in skir-

mishers, but when it came to the open, experience taught him that fire superiority was his best cover, accordingly he put in muskets enough to at once beat down the enemy's resistance, that is to say, he attacked in line, two deep, for more could not use their weapons with success. Men fell more rapidly, it is true. That was because there were more to fall. But the chances against any individual were far less than in the modern extended line, for there were fewer rifles at liberty to deal with him.

A very simple experiment will make this evident. Take a single target and let ten men fire at it. Then let the same ten fire an equal number of rounds in the same time at ten targets. Then, though there may be more hits on all the ten targets, yet the one target will have many more holes through it than any one of the ten.

Hence, if the soldier were an automaton, the net result of our misguided humanitarian efforts on his behalf would be to intensify his chance of injury tenfold. But since he is a creature of free volition, in practice he adjusts himself to the risk by lying down as soon as things begin to appear intolerable. Obviously, this will be sooner (*i.e.* at a greater distance) when ten men are trying their best to kill you, than when only one is so employed; hence the chance of his doing any harm to the enemy by his return fire is correspondingly diminished.

This explains in a great measure the universally reported invisibility of the Boers, and accounts for the nervous strain the 'blankness of the battlefield' (as one officer of acknowledged standing described it) created, and this nervous strain did not improve the shooting. Hence more men were required to produce a sufficient result; or an equal number required a greater time, with the consequence of a higher casualty roll than was strictly necessary.

As against the Boers this generally signified very little, for the extra time was utilised after Paardeberg and Ladysmith in swinging round our mounted flanks. Had we forced the fighting they would have retired sooner and escaped with less loss and confusion. But against European Infantry such delay would have been disastrous; it would have given them

time and opportunity to prepare for their own counter-attack, which our widely extended lines would have been in no condition to stop. We should simply have been swept away.

We admit in this same most illogical handbook of ours, that closed formations are requisite to stop the rush of Ghazis or Mahdist fanatics; but surely its authors cannot suppose that a Brigade or Division of Prussian Lancers would charge home less rapidly than savages on foot? And they cannot be unaware of the fact that it takes many more bullets to bring down a horse than to disable a man. Against such a counter-attack as this what could our revised Cavalry, taught to rely on their rifles, not their swords, effect? But to this point I will recur later.

Actually, our recent experience only confirms the conclusions derived from countless former experiments. Men in line will press home further than men four paces apart, and these again further than men at ten; for even eliminating the immense moral support derived from the presence of comrades shoulder to shoulder, for a given number of rifles to be faced the larger the number of targets over which their fire is distributed, the less the risk to each particular target. And it is individual, not collective, risk which alone signifies. Men do not stop to calculate percentages when a rush is being made.

Fortunately, this reasoning, which is fairly familiar to the trained Staff Officers of other armies, fully established in their minds the reputation of the British private for courage. But the ignorance of these cardinal principles that our new regulations and the whole tone of our Press and Parliamentary criticisms display, has seriously shaken Continental faith in the capacity of the British Headquarters Staff and the British Public respectively to face the strain of serious campaigning, for from troops handled on these humanitarian principles everyone feels there can be but little to dread.

Their appreciation of the situation is all the keener because whether Germans, French, Austrians or Russians, they have all passed through the same phase themselves. In their case patient historical research is showing them the way out; though all existing drill-books, except the French, are strongly

tainted by the old superstition. As the explanation of its origin is also a salve to our national vanity, showing that mistaken principles may be temporarily adopted even in the best regulated armies, I may be pardoned for giving it at some length.

In the Napoleonic day the procedure in battle was simple. The engagement opened with an Artillery duel and the advance of clouds of skirmishers. It was Napoleon's favourite formula *On s'engage partout et on voit.* When he had seen his enemy's weakest spot, and had induced him to use up his reserves, then came the moment for the great blow. A line of guns, upwards of 100 in number, galloped up to case-shot range, about three to four hundred yards, *i.e.* just outside the limits of accurate fire from the old muskets, and literally tore a hole through the enemy's position. Through this gap the Cavalry surged, and behind them marched the 'Guard' with shouldered arms, rarely finding it needful to fire a shot. These tactics failed conspicuously against the British Line, both in the Peninsula and at Waterloo; but our achievements attracted little attention, and Continental nations cling fast to old traditions. But it happened that the new conditions of armament never gave them a chance of again testing these traditions fairly.

The era of invention had set in, and during the next forty years no two Armies ever met under conditions of equal armament on both sides.

Thus in the American Civil War—North and South used relatively long-ranging muzzle-loading rifles for their Infantry, whilst the bulk of their Artillery was still in the smooth-bore stage, with the same limit of case-shot range as at Waterloo.

To gallop up with these guns and unlimber at 300 yards, or thereabouts, from the muzzles of a line of rifles, was entirely impracticable. Hence the one factor conditioning all Napoleon's victories and consequently his tactics, which all nations except the British had copied, was struck out of the calculation. Attacking Infantry—instead of marching with shouldered arms through the gap the Artillery had torn down for them—had to force their way across an open

bullet-swept zone without even the support of their own fire power, for their rifles could only be loaded when standing and men soon learnt that to stop to load in a rush meant certain death.

In 1866, in Bohemia, the breechloader again disturbed all previous calculations. The Prussians lying down as skirmishers presented but little target, and picked off the Austrians, compelled to stand up to load—with ease and impunity. No one stopped to inquire what would have happened had both sides been armed with similar weapons. Everyone put down the comparative immunity the Prussian Infantry had enjoyed to the fact that they fought as skirmishers—and not to the accident that they were able to load lying down. The French who, in Europe, may be said to have initiated the school of the skirmisher—found their national tendency strengthened by Prussian example, and they met their enemy in 1870 also in long extended lines but with a weapon capable of performing the same work in man-killing at 600 yards that the needle-gun could accomplish at 200. The Prussians thus found themselves compelled to force their way in to close quarters against a storm of lead to which their armament gave them no sufficient power to reply —and the common shell, the only projectile used by their field Artillery, had not the relative superiority of Napoleon's old case-shot over Infantry fire, to support their attacks. Thus all order melted out of their fighting line, and, the battles being finally won by long lines of men in hopeless disorder, the troops attributed their victory to this disorder and not to the strategical skill of their Leaders who had placed them in such positions of relative superiority that their enemy abandoned the struggle before the stage of the old 'decision-compelling' blow had been reached.

The fact is that on the Prussian side, only the King and Prince Frederic Charles seem to have understood this spirit of the Napoleonic battle at all. The former undoubtedly had the idea clear in his mind, though he was unfortunate in his choice of opportunity when he ordered the II Corps across the Ravine of the Mance at the close of the battle of Gravelotte. But the latter, when on the same day he sent out his

orders for the whole of the Guard Corps—XIIth (Saxons), Xth, and IIIrd Corps—to advance against St. Privat, showed a comprehension of the needs of the battlefield unequalled since Napoleon. Actually his enemy, unsupported, outnumbered, and utterly exhausted by their prolonged exertions, gave way before the rush of their skirmisher lines alone, and the conception originated in the Prussian Infantry that with the breechloader the skirmisher, or extended order, alone sufficed to procure the decision.

Now since it is of the last importance that the man in the actual fighting line should believe unreservedly in his power to influence the ultimate result of the battlefield, this conviction was eagerly seized upon, and was made the foundation-stone of the several Infantry Regulations published since the close of the War. But the superior Leaders (those on whom the responsibility of controlling all three arms of the machine —Cavalry, Artillery, and Infantry—was destined to fall) never for a moment allowed themselves to lose their grasp of the whole problem by concentrating their attention on any single part. And this happened not only in Germany, but in France, Austria, and Russia.

But in England, where the bulk of all Commands are assigned to the Infantry and where there was no real General Staff to guide the trend of military thought, attention was focused on the fighting Line only. The problem of covering the advance of that Line by the concentrated fire of large masses of Artillery and supporting it until the endurance of the enemy had been worn down and all aimed or controlled fire had become impossible was entirely neglected. That this is no exaggeration of the general tendency in our Army during the early eighties is sufficiently proved by an incident at Aldershot of which I happened to be an eyewitness. For several successive seasons we had fought innumerable engagements, always in the same long unsupported lines of skirmishers, and the whole proceeding had become stereotyped.

But at one October inspection (1883) the Duke of Connaught was given the Command of practically the whole Division in order to attack the heights of Cæsar's Camp and Beacon Hill. Then he took the opportunity of showing us

what the Continental idea of an attack really was. Covering his advance by the fire of every available gun, the Division, preceded by an extended line, broke cover from behind the low sandhills on the South bank of the Basingstoke Canal and swept forward in successive deployed lines, about 400 yards apart, up the low ground between Long Hill and the steeplechase course. Every soldier in the British Army knows it. I was riding with my Chief, immediately behind the Duke of Cambridge, who himself had only just returned from the Homburg manœuvres, and to my astonishment I heard certain Staff officers condemn the whole proceeding in distinctly unmeasured terms in the Commander-in-Chief's presence—in fact the remarks were addressed to him. They pointed out that such an advance in face of the enemy's Artillery fire was preposterous, failing to realise that the Guns were only still in action because, being a field day, they did not realise that they had been destroyed as a preliminary to the Infantry advance.

The Commander-in-Chief took it all with his usual good humour until the 'critique,' when, having heard both sides of the question, he summed the whole matter up most admirably. To me, also fresh from Homburg, his meaning was perfectly clear, but I gathered from several others of the Staff, riding home afterwards, that they had not in the least grasped the point he was aiming at, and considered his remarks as rank heresy against the Regulations. But later on I met the Duke's Brigade Major, the late Major Molyneux of the Cheshire Regiment, also just back from Homburg. He was beaming all over, and his first remark to me, 'That was splendid, was it not? They simply had to go through—nothing could have stopped those Lines,' showed that he had grasped the Duke of Connaught's intention.

Amongst the men and Company officers I found exactly the same feeling; in fact, years afterwards, I have come upon Reserve men and Commissionaires who still remembered that particular day and the general feeling of exhilaration the attack had evoked.

But even the Duke's influence and example could not shake the consequences of ten years' previous training, and

though in the period just before the Boer War matters had improved, yet, as the War itself showed, the employment of the Reserves and Artillery had hardly become instinctive in our Commanders' minds, and battlefield knowledge must be instinctive if it is to be of any use.

Meanwhile, however, the use of shrapnel shell had become general all over Europe, and the Battle of the Aladja Dagh in Armenia, 1878, had shown conclusively what it could effect. The French at once caught on to its possibilities and realised that here was the equivalent for Napoleon's case-shot attack; for the shrapnel shell enabled them to effect, by the hail of bullets it delivered when bursting, from 3,000 yards, all that the old smooth-bore guns could achieve at 300, and even more. For whereas the smooth-bore Field Artillery was dependent on the chances of the ground providing a suitable position on which to come into action (note the position of D'Erlon's guns at Waterloo), the new Artillery could fire from anywhere, whether they could see their target or not. To make the most of this new projectile, the French now took the lead in the introduction of the Quick-Firer, and with this combination it has become possible to launch upon any given target, from practically any distance up to 5,000 yards, a storm of projectiles per minute far in excess of anything Napoleon ever dreamt of.[1]

With this alteration in the balance of power between the weapons, the conduct of a battle has now swung back to the Napoleonic type. But this needs a training of the men to exercise to the utmost their powers of self-control, and to endure passively heavy losses as a preliminary towards reaching those positions relatively to the enemy from whence their fire could be employed to the best effect.

This, however, was and is entirely contrary to the natural instinct of the man who, with a rifle in his hands, naturally feels that he is not being usefully employed in doing work—

[1] The French Artillery fire by 'rafales' or gusts of eight rounds in 30 seconds; each shell contains roughly 200 bullets. 500 guns—not an impossible number nowadays—could therefore deliver 1,500,000 bullets on an area about 300 yards deep and say 500 yards wide, or 10 bullets per square yard per minute. As the average man affords something over a square yard of vulnerable surface, he would therefore be hit at least ten times every minute.

i.e. in killing the enemy, unless he is actually lying down and shooting at him. Hence the whole idea of endurance seemed in absolute contradiction with the spirit of the new armament, for with each improvement in the Infantry weapons it was evident that greatly increased man-killing power resulted, and very easily the conclusion was jumped at that this gain in power must be proportionate to the increased rapidity of fire claimed for each new weapon by its inventor.

Roughly speaking, the old flintlock musket could be fired three times a minute, the needle-gun ten, the chassepot twenty, Martini twenty-five, and the modern magazine rifles about thirty; and if rapidity of fire alone ensured its deadliness the inference that one Mauser is equal to ten muzzle-loaders would be fairly justifiable.

Deadliness—or let us say 'intensity'—of fire, however, implies certainty of hitting, and no mechanical improvement in loading can alter the time necessary to take a deliberate aim, which time also increases as the apparent size of the object to be hit diminishes—*i.e.* as the range increases, as everyone knows who has watched Bisley marksmen at the 1,000 yards target.

A scientific method of inquiry would therefore have proceeded to investigate the powers of these weapons to do equal work at certain ranges, and this inquiry would have very materially modified the above ratios.

No such investigation, to the best of my knowledge, has ever been undertaken; but from my own experiments I imagine the results would have been somewhat as follows:

Two men with the old muskets would make as many hits on a given target at 150 yards as one man with a Snider at 400; that is to say, that if the man with the muzzle-loader took twenty-eight seconds each to load, and two seconds to aim, the man with a breech-loader would take two seconds to load and thirteen seconds to make equally sure of hitting his target. The Martini was more accurate and fractionally quicker to load; so with it the same result might be expected at 500 yards as with the Snider at 400; and with the Lee-Metford or Mauser 600 yards would mark the outside limit of equal power. Now, from years of experience, we know

that it took all a two-deep line could do to stop a determined attack at 150 yards; hence a single rank of Sniders would stop an equally determined rush at 400, or with the Martini at 500, or the Lee-Metford at 600, and these figures agree very closely with the recorded results obtained with approximately similar weapons in European fighting.

The importance of these figures established by practice was by no means grasped at once. But presently it began to dawn upon the collective tactical wisdom of Europe that, weapons being equal on both sides, the problem of successful attack remained very much where it was before; only the distance at which the question of fire superiority had to be settled had changed, nothing else; and hence the same method, which had secured the destruction of the enemy most rapidly in the days when the point had to be decided at 150 yards, would probably be the best suited to the purpose at 600 or any greater distance. And thus the conviction gradually spread that after all the spirit, not the letter, of the old Fredrician or British Line was fundamentally correct, and that the surest road to victory now, as then, lay in the employment in the fighting line of the greatest possible number of rifles that could find room for effective action simultaneously, and as close up to the defenders' position as discipline, based on drill, could carry them.

The French led the way in this matter, for their regulation attack is simply the old line without the rigid dressing. A few Prussian [1] officers were prepared to go even further; but they were ahead of their regulations, which still left the question open whether the individual might exercise the right of private judgment and die where he pleased, and not where his officer told him. We lagged behind both Germans and French and elected a formation which possessed the defects of both, and the good qualities of neither, and with this disadvantage we entered on the South African campaign.

Fortunately the Boers met us more than half way. With no experience of what fighting between two European Nations really was, they counted on being able to pick off 'roineks' with the same ease and precision with which they could roll

[1] The School of Meckel's 'Midsummer Night's Dream.'

over an antelope, or any other target that could not shoot back, and was unsupported by Artillery fire. They began the campaign by occupying positions with not more than 500 men to the mile, where Europeans would have used at least 2,000, with more behind in support. Against this quite inadequate allowance of weapons our own formations, which gave about 1,000 rifles to the mile, abundantly sufficed, as Talana Hill, Belmont, and Enslin clearly proved. The losses we suffered in these engagements, in spite of the difficulty of the ground to be crossed, were small compared with what the capture of similar positions held by equally determined enemies—Bunker's Hill for example—had cost us in the past.

Unfortunately our Generals, spoilt by many almost bloodless victories over half-armed savages, proved quite unequal to bear the responsibilities of their position. They ordered the adoption of formations and tactics which ensured to the Boers the greater number of rifles in the firing line at the decisive point, and ended in the fiasco of the Modder River to which I have already referred. Finally, as the only way out of the *impasse* into which defective tactical education had led them, they had recourse to the idea of 'night attacks,' the risks of which had been fully appreciated and pointed out by all great commanders as far back as the days of Frederick the Great, when the distance to be crossed was measured in hundreds, not in thousands of yards as at present.

It would be unfair to blame any individual. The idea was simply in the air, encouraged and propagated by the wild exaggerations of certain of the War correspondents, who merely expressed the current feeling in the camps. This was the necessary outcome of the School in which for the past thirty years nine-tenths of the men and officers of the British Army had been trained, and the consequences of whose tuition repeatedly had been predicted by serious students of tactics all over the world.

Had the Boers been compelled to stand and fight us like ordinary Infantry, these questions could never have arisen. Finding, as at Talana Hill, Belmont, and Enslin, that 500 men to the mile were not adequate to stop 2,000 British

Infantry on the same front, in default of unfordable rivers or other physically insuperable obstacles to prevent our men closing with them, they would have been compelled to thicken their line. Now since it is generally easier to find or make cover for 500 men on a given front than say 2,000, as the line thickened, their invisibility would have diminished, and our Artillery and Infantry would have found better targets.

Simultaneously the extent of their front would have been lessened in proportion to the numbers per mile employed, with the result that our turning movements could have been made with greater ease to the troops, and would have required less time in which to carry them out. Our attacks would, therefore, have been delivered with greater certainty and vigour. The need of retaining ample reserves within call to meet them would then have made itself as apparent to the Boers as it is in Europe; hence there would have been a further reduction in frontage, with its corresponding gain to us, and in a very short time we should all have been back again fighting under the original conditions which our drill book had been created to meet.

Mutually we should, in fact, have gone through the same cycle of trial and error which the Northern and Southern armies traversed in 1862–64. They also began with an exaggerated extension of front, and every confidence in the individual prowess of the sharpshooter, only to end with the most reckless appeal to the bayonet which the history of modern post-Napoleonic warfare has to record. And this was arrived at and justified by the following chain of reasoning—'The War must end soon: only decisive victories can end it: and only a resolute offensive gives hope of decisive results.'

Unfortunately for us the Boers possessed in their horses, and the almost boundless area of the theatre of operations, two advantages which together sufficed to upset all previous tactical deductions, and with most correct military instinct, unimpeded by any considerations of soldierly etiquette, they promptly made the most of them.

Since, except on the Tugela, no particular position offered them special strategical advantages—for they may be consi-

dered to have had no lines of communications or bases of operation—they made no attempt to defend any one place to the last, but merely occupied an advantageous firing position, from which they could overlook and harass our advance. Then, as soon as the attack threatened to develop, they mounted, and retired to renew the operation elsewhere; and being able, thanks to their acclimatised horses, to get away faster than we could follow them, they succeeded in keeping us in a state of hopeless mystification as to their real numbers.

Knowing the effect their invisibility and fire power had exercised on our 'moral,' they adopted yet wider limits of extension. Still further extending their front, they entailed on our jaded horses yet longer and more fatiguing marches, so that when at last we had worked round their flanks pursuit was altogether out of the question, and they rode away unscathed to repeat the process another day.

Against these methods only time and numbers could prevail; but is there the remotest prospect of our ever meeting such conditions again? And if we now base our tactical instructions on such misleading data, how will they serve us when we meet with normal conditions?

These views of Continental soldiers may be right or they may be wrong. I have recorded them to show the very wide diversity of opinion which can exist amongst soldiers, all animated with the same idea of doing their utmost for their country; but since they do exist what prospect can there be of gauging the fighting value of the British Army with the nicety our parliamentary reformers appear to consider possible —*i.e.* to 10,000, more or less?

CHAPTER IV

THE FUNCTION OF THE VOLUNTEERS IN PEACE

In the last chapter I pointed out that the widest possible differences of opinion exist as to the nature of the tactical training required by our troops to fit them for their primary purpose—the maintenance of Peace. It follows that until the Nation, for itself, decides between these rival schools, no certainty can exist as to whether the Army is, or is not, sufficient for our needs.

Fortunately the growth of the Nation has, at the critical time, evolved the very organ needed to supply the kind of education required for a correct decision, though this function, which I maintain to be its chief one, has hitherto escaped our appreciation. Other Nations have been compelled to 'create,' under pressure of internal revolution or external disaster, a national school of arms to meet their needs. We, by adapting ourselves to the changing conditions of our environment, have evolved, by voluntary effort, a form which I believe to be exactly fitted to our needs—namely, 'The Volunteers.'

Their growth has been slow, but it has been sure, and now over the whole of the United Kingdom there is a network of instructional centres where men—ultimately electors—are willing and waiting to be taught the elements on which the decision of the above-stated problems depends.

This function of the Volunteers' existence—their share in our national education—has not yet attracted the attention it deserves, and to understand its whole bearing one must go rather thoroughly into the history of the movement.

After the close of the Great War (1815), our Fleets and Armies were at once brought down to the lowest possible footing,

but the Fleet suffered most because, after Trafalgar, its vital importance was no longer in evidence. The Army, thanks to India and our Colonial possessions, was always more before the public, and by force of circumstances was compelled to maintain at least its regimental efficiency.

It possessed another advantage also, that of the Regimental system, which in those days of Long Service gave continuity of tradition; but under the system of manning the Navy then in force, a ship's crew was dispersed after a three years' commission and never reassembled again.

Under these conditions the Navy lost its efficiency far more rapidly than did the Army; not only were the hulls allowed to rot idly in the dockyards, but on the few remaining in commission paint and polish supplanted gunnery and fighting training.[1]

It is very generally assumed that the Duke of Wellington and Sir John Burgoyne, when they endeavoured to awaken the country to its danger in 1849, were ignorant of the teaching of history in regard to Sea Power, but I am unable to find evidence to support this view. To me the presumption seems to be that, though fully aware of what an all-powerful Fleet could do—and who, having served in the Peninsula, could be otherwise than possessed of such knowledge?—they knew only too well that no such Fleet existed on our side, and they despaired of seeing one created in time to meet a French offensive.

Memories are so short in these days that it may be as well to recall some of the evidence on which such opinions rested.

In 1836 our Mediterranean Squadron had sunk to a single vessel, and that not a very formidable one. Ships often lay in our dockyards for months before they could get together a crew, three-quarters of which were often only landsmen. Under such circumstances it took three months at least to weld these inefficients into a fighting body.

The incidents in the Ægean Sea which terminated with the Battle of Navarino compelled us to collect a squadron at

[1] See Sir Nathaniel Briggs' *Thirty Years of Naval Administration*; also Sir Francis Head, Sir Howard Douglas, &c.

all costs, but it was so badly found and manned that the French Admiral L'Allemand—one of our allies at the time—wrote home entreating for leave to attack us at sight, proposing then to come back to the Channel and cover a landing in England.

The French, with their 'Inscription Maritime,' were never short of men, and their dockyards continued to turn out beautiful ships. These were all in hand at the Home ports, while ours were disseminated all over the world, and there were no ocean cables available in those days wherewith to call them together. Algiers also and Rome had given the French great experience in embarking and disembarking troops.[1]

It is not to be wondered at that under these conditions the idea of revenge for Waterloo awoke, and that many men in high positions were bitten by the hope of the distinction such an exploit as L'Allemand's would afford.

Even the Prince de Joinville, on the whole a good friend to our country, but a Frenchman first of all, pressed hard to be allowed to make the attempt. To show the superlative ease with which it could be effected, he sailed his frigate into Sheerness one morning and duly saluted.

Then there was consternation in the garrison; for, as it happened, all the guns in the land defences had been dismounted for platform repairs, and as those on the Flagship were also dismounted for painting the ship, there was nothing available for returning the Prince's salute. Finally a boat had to go off to the French ship and apologise for the unavoidable delay in acknowledging the courtesy of its commander.

On the Continent quite a number of pamphlets appeared about this date on the 'Invasion of England,' and even a Swiss Engineer, Baron Maurice, gave us a treatise on the defence of London. As for the resistance we could have opposed to such landings, the whole may be best summed up in the Great Duke's solemn warning: 'I am bordering upon seventy-seven years of age passed in honour. . . . I hope that the Almighty may protect me from being the witness of the

[1] 'Prince de Joinville's Memoirs,' also Edinburgh Review, October 1901.

tragedy which I cannot persuade my contemporaries to take measures to avert.—WELLINGTON.' [1]

That it was not superfluous may be gathered from the evidence given before the Royal Commission, 1859, and Lord Overstone's Appendix to 'Report of Commissioners to consider the Defences of the United Kingdom' (p. 90), published in 1860:

'It would be absolute madness on the part of the Government and people of this country to shrink from any sacrifice to avert such a calamity.

'The complicated and very delicate network of credit which overlies all the multitudinous transactions of this country would vibrate throughout upon the first touch of our soil by a foreign invader, and would in all probability be subject to a sudden and fearful collapse; while the confusion and distress produced amongst the labouring classes would be truly fearful.

'Millions of our labouring population depend for their daily maintenance upon the trading and manufacturing enterprise, the vital principle of which is the undisturbed state of public order, confidence and credit.'

Asked his opinion as to the probable effect of the occupation of London—all bank-books, securities, etc., having been removed, and 'private property' being respected by the invader, he said:

'I cannot contemplate or trace to its consequence such a supposition. My only answer is:

'It must never be!'

The outcome of warning and evidence was the resolution to provide the dockyards with land defences. At the same time the idea of reviving the old Volunteer Force was first started and warmly supported by such tried soldiers as Sir Charles Napier, Sir John Burgoyne, and others.

The Navy then began to revive, but the uncertainty into which the introduction of steam had plunged contemporary naval opinion, together with the unsolved problem of finding crews for our ships, left the final appreciation of its supreme necessity very much in the background.

[1] *Life of Sir John Burgoyne*, vol. i. p. 451.

Followed the Crimea and the Mutiny. Then, at length, these brought home to the country a knowledge of the horrors of War, that prepared public opinion for the reconstitution of the Volunteer Force. This has only owed its permanence to the fact that there were war-seasoned officers in plenty, such as the late Lord Wantage, to give it countenance and a right initial direction.

Since then, whether by mere coincidence or design, it has fulfilled its function as a popular educator in a marvellous degree. The first need of the Nation was an overwhelming consensus of opinion in favour of an overpowering Fleet; but this could not arise until a widespread knowledge of our general unreadiness for War had been brought home to the public. The groundwork for this was laid by the old Brighton Easter Monday Reviews. As a young officer, I assisted at several of these, and though by that time they had lost some of their original crudeness, I think no one returned from one of those exhaustingly long days without a convincing impression that if we had had to stand up as targets to a trained enemy the result would have been very disagreeable indeed. Also we learnt that the maintenance of discipline amongst a weary and demoralised crowd required higher qualities than the mere ability to repeat words of command. This is the first great lesson by which a man learns to distinguish between mere technical knowledge and the Art of Command. Unfortunately the Volunteers have not half learnt it even yet.

The interest aroused by these days led every year to a renewed discussion as to the reasonable prospect of a successful landing, and newspapers had to find leader-writers to deal with the question. This led men to discover the depths of their own ignorance, a cry arose for books and further information, and the publishers began to find a market worth supplying. Ultimately came Mahan's great book at the psychological moment, and with it the formation of the Navy League, which has removed the question of a strong Navy beyond the bounds of parish politics. But had it not been for the Brighton Reviews, no public would have existed to read Mahan, and hence no League to represent the principles

of 'the influence of Sea Power.' It must be remembered that Admiral Colomb had already treated the whole subject with greater brevity, but fully equal soundness, and had hardly found a reader outside of naval circles—another proof that the prophet is of no account in his own country. It took an American to wake up the British Nation to a full sense of its danger and its need of an invincible Navy.

All the while this process was at work on this particular line, progress was being made in other directions, and above all things the existence of the Volunteers was gradually breaking down the social barrier which for so long had separated the regular soldier from the people. Short Service helped, it is true, but Short Service was itself in need of help, and would hardly have found the necessary supply of recruits, but for the better knowledge of the Army that the Volunteers were distributing throughout all classes.

It would be interesting to have exact figures on this head, were such forthcoming. Judging from my experience with my own battalion, the Volunteers must have been furnishing nearly 10,000 recruits per annum to the Regular Army before the Boer War. What they did for the Imperial Yeomanry, their own active service companies, and so forth, is sufficiently well known.

It is not easy to assign a money value to the restraining influence which the knowledge of the fact exercised in European Chancelleries, that there were in England not only 280,000 Volunteers actually with the Colours (who would become regular soldiers under the Army Act in case of mobilisation), but that behind them were upwards of a million who had passed through their ranks, and were still of an age to serve according to the Continental standard of liability, viz. up to 45 and even to 60 years of age.

In the diffusion and acquisition of sound tactical knowledge Volunteer progress has been very disappointing, as the support uniformly accorded by the Press (which is almost entirely controlled by Volunteer influence) to all the popular fads which in a former chapter I have endeavoured to expose, sufficiently indicates.

Yet if we compare the time it has taken to eliminate

similar heresies in Regular Armies, and the peculiar difficulties under which our start was made, there is no real ground for discouragement.

It must be remembered that the men who first took up the idea of Volunteering had been bred up in French Revolutionary traditions. Though they fully appreciated what discipline and drill could make of Regular soldiers, they none the less vividly remembered what the first 'armed rabble' of France had succeeded in accomplishing against our own, and the Prussian and Austrian Line troops. They had also seen the Spaniards and Portuguese fight in defence of their homes, and though they were still too close to these events to realise the unseen causes which had in both cases undermined the chances of the Regular troops, they knew that numbers of able-bodied men, willing to die for their homes, were always a formidable enemy to be reckoned with. *Provided always that those numbers did not exceed the power of the district, within which they moved, to support them.*

Nor did they contemplate the suddenness of modern mobilisation and transport. They remembered the months during which the white tents above Boulogne had been visible from Folkestone, and felt secure that 30,000 men was about the outside limit of any surprise raid to be guarded against.

That their ideas were very modest is shown by the draft regulations originally drawn up by Sir Charles Napier and others. But they had overlooked the fact that their generation was passing away and that presently there would no longer be any of the survivors of the Peninsular to teach these raw levies the 'tricks of the trade.'

Actually, even in the forties, this generation was extinct in the bulk of the Army. By this time the Barrack-Square School (good enough when kept within proper bounds) was triumphant, and as faith in the Navy waned, and the dread of what steam transport might effect increased, the whole movement became more ambitious. Personally I think very rightly so, for the following reasons :

Men with muskets or rifles, who are content to die if only they can kill an enemy first, are certainly formidable antagonists. We must not, however, forget that the whole-

sale slaughter and deaths from disease, which inevitably result from employing crowds of such men without organisation or training, would be (in a self-governing country) a terrible evil ; one leading to panic and despondency in the masses, when courage and resolution most are needed. London is altogether too near the sea, and modern armies move too fast, to contemplate the possibility of forging an Army under fire, as was done on the Sambre and Meuse in 1792–93.

Since we had time to prepare, it was obviously a sensible plan to work on a given system, and after all no system had stood the test of time better than that of the old Light Division, which made disciplined soldiers first, and skirmishers afterwards.

This at least was the experience of our cousins across the Atlantic. Beginning with far more independent ideas as to the value of personal liberty, and a better raw material for turning out sharpshooters, they nevertheless soon found themselves compelled, by the logic of events, to drill as savagely [1] as any troops in Europe.

However fascinating the idea of the roving skirmisher in face of the enemy may be in theory, in practice one must remember that he has to get there first. To do this he has to sleep ten in a tent, do what he is told, and not squabble with his comrades over the distribution of rations, and the school of obedience, with a week in camp, remains the best means of teaching him these elementary lessons. Above all things he must learn to feel himself *one of a body*. This is why the pomp and circumstance of ceremonial drill still retains its *raison d'être*. There was, moreover, another cause which hampered progress. It has hardly been superseded yet, and therefore demands somewhat prolonged notice.

It must be remembered that in the old Long Service School of War, the old soldiers were the real instructors of the recruits in all that pertained to minor tactics. These men taught by right of tradition, partly because their own safety in action might at any moment depend on the

[1] See *In the Confederate Army, The Soldier in Battle*, Wilkieson ; *Battles and Leaders of the Civil War*, Scribner ; also regimental histories now appearing in U.S. Military Magazines.

behaviour of a comrade, and partly because they had generally seen far more service than the young Subaltern, who joined when very young indeed, and who also learnt his business from the old soldier in the ranks. By the time the young Officer had gained standing enough to teach in his turn, even if it had been required of him, he was too high up the tree to interfere in these matters. It seemed to him that they regulated themselves of their own accord, and his attention became absorbed in the higher branch of his profession. This is the exercise of the vital Art of Command, which has nothing to do with technical instruction, but everything with the study of the human-nature side of the soldier.

It is probably not generally known to civilians, but it is an undoubted fact, that an Officer may be almost helplessly ignorant of drill and yet be an admirable Commander, because he treats his men with judgment and tact and is capable of securing their absolute devotion under circumstances of exceptional danger and privation.

The race is most likely nearly extinct now, or at any rate under the new Army order conferring responsibility on the Company Commanders it soon will be; but in my own experience I have known and served under many such, and an example in point may be of interest. Some years ago in Lucknow there was a very bad outbreak of cholera in a certain Infantry Regiment, and something amounting to panic set in. The officers who were away were all recalled from leave, and amongst them was the Senior Major—an old schoolfellow of mine—who had this art of inspiring devotion in his men in a very high degree. As his carriage passed the Guard-house at the Barracks, the Sergeant of the Guard caught sight of him and said to the men as he dismissed them, 'Ulloa, old Jim's back! Now you mark my words, there won't be another case in the barracks this time.' And there was not. The news of his coming went round in a flash, despondency disappeared, and even the sick recovered.

Those who wish to know what the typical British Officer of the old Army really was should read Mounteney Jephson's

books, in particular 'Tom Bullekeley of Lissington.' Even the types in that immortal skit 'He Would be a Soldier' were of the best. But they were not 'Instructors' as the modern officer has to be, and this not because they were either idle or stupid, but simply because they had never been called upon to exercise that particular side of their faculties.

Matters in the German Army had been in exactly the same condition as Marwitz's [1] invaluable diary shows us, and they remained the same in France [2] and Austria respectively until the campaigns of 1866 and 1870 forced on all officers the necessity of becoming competent instructors.

Such Officers were like fish out of water in the new Volunteer atmosphere, because they had not merely to issue orders but to be ready with reasons for giving them. At last, when a working arrangement had almost evolved itself, came the sudden and apparently complete reversal of all existing tactical theories due to the introduction of the breechloader.

Things were bad in all countries, but they were worse with us, for the new doctrines struck at the root of all discipline by destroying confidence in the knowledge of superior rank and longer service. The youngest Subaltern who read the papers was at once on an equality with the oldest veteran, for both had only hearsay to guide them, and, even in the Army, the veterans distrusted the strength of their own position.

I can speak with feeling on this point, for I was myself as badly bitten by the new mania as any of the present reformers, asserting my position with the same cocksureness and conviction as the most rabid supporter of the modern Rifle Clubs. But no one spoke with conviction on the other side, and, lest my memory should betray me, I have lately gone through whole volumes of the tactical literature of the time, and all the discussions at the Royal United Service Institution, without finding a trace of the chain of reason-

[1] *Aus meinem Tagebuch*, by von Marwitz. I have made long extracts from it in 'Cavalry *v.* Infantry, and the Cavalry, its Past and Future.'

[2] See *L'Education de L'Infanterie Française*, by Col. de Flêtres, 1887.

ing, referred to in the last chapter, which has again brought tactical thought on to a solid foundation.

Owing to my previous connection with Germany, I passed through the various phases of the malady (*Verlustseuche*, the Germans called it) more rapidly than most of my comrades. The boys who had been my schoolfellows in that country told me at first hand what they had really seen, and the older Officers (friends of my family), were glad enough to lend a helping hand to the young Englishman who wished to learn. Thanks to their guidance I soon discovered how to read the 'Prussian Official' between the lines, and how much weight to attach to the writings of the new school. Finally after a course of manœuvres, during my leave for some years, I realised all that was contained in the anecdote current at the time about von Moltke and the Duke of Cambridge, which *se non è vero è ben trovato.*

The story went that the Duke of Cambridge one day called in a friendly way on von Moltke and, amongst other matters, asked him if he could recommend a good and suitable book on outpost work and Minor Tactics generally for the use of the British Army.

After a moment's thought von Moltke rose, and going to his bookshelf pulled out a much worn copy of Crauford's 'Instructions for the Light Division,' which he handed to his visitor without a word.

Curiously enough Crauford himself had been educated in Germany, and it is considered that he owed much of his power of clearly expressing his tactical ideas to what he had seen and learnt in that country. His pamphlet was afterwards embodied in our drill-book of 1814, which practically remained unchanged till 1874, and as all the Line tactics it contained were derived from Dundas's celebrated 'Eighteen Manœuvres' (itself almost a transcript from Frederic's and Saldern's instructions of 1750), Moltke's action conveyed a tacit hint that the British in 1880 had little to learn from his own service. This view was constantly impressed on me in conversation with the many distinguished Prussian officers whom I met from time to time at Aldershot and in Germany.

If progress were slow in Germany, even where the eye-witness testimony was everywhere at hand, it can hardly be matter of surprise if it has proved slower with us. They at least had possessed for years a War Academy and Intelligence Department organised and guided by the two ablest military thinkers (not executives) of the century, Clausewitz and von Moltke. But even these institutions proved unable to reconcile the conflicting evidence with which they were deluged.

Our Staff College only came into existence in 1860 and our Intelligence Department did not take shape till 1872, whilst the Military History section, the most important branch of such an institution, even now only exists in a rudimentary form.

Under the circumstances we took the only steps practically possible at the moment. We appointed Garrison Instructors and examinations for promotion, which at least compelled Officers to study some professional literature. Unfortunately there was, and still is, very little of this commodity available, but the Instructors threw themselves into the gap manfully, and if none of their work is of the first rank, it is not easy to see how out of the materials before them they could have evolved any better.

Where the Germans went on 'best' evidence we had to be satisfied with 'hearsay.' Then of the few of our own Officers who took part either in the Bohemian or French campaigns, it happened that the great majority, and by far the most active in a literary direction, had seen no other serious fighting from which to draw useful comparisons. Hence almost all of them fell under the spell of the prevailing opinion in the German Army, viz. that the fighting throughout was of unprecedented severity.

I have met, at one time or another, nearly every English Officer who took part in the War, and have read, I think, all that they wrote on the subject, together with hosts of pamphlets, etc., by German, French, Austrian, and Russian writers. Out of all these, I can only recall two men, one a Russian, the other an Englishman, who ventured in those first years after the War to stand up against the general tendency of opinion.

The former was the well-known Russian General 'Dragomiroff' who went through the 1866 campaign as military attaché to General Steinmetz. Referring to the question of the awful fire-power of the breechloader, he asked 'whether they had all forgotten the effect of the British volleys in the Peninsula?' The latter, Captain Seton, of the Madras Fusiliers, who had been through the Mutiny, saw nothing very remarkable in the heaps of killed and wounded. But these two dissentient voices were powerless to stem the torrent, and those German officers—Meckel, Hoenig, Malachowski, etc. (to whom we now owe the revelation of the truth of German fighting)—had very good reasons at the time for keeping silence.

Under these conditions it is not to be wondered at if we floundered, and it will be seen that the greater the reasoning ability of our writers the worse the confusion was bound to become. For, if the postulate once be granted that the slaughter in battle is determined by the nature of the weapon and not by the man, logically there was no escape from the conclusion we reached. This was the exact opposite of Scharnhorst's celebrated apothegm, 'One should teach the soldier to know how to die, not how to avoid dying.'

Now it was that we began to reap the fruits of our many years of intellectual torpor. Our old veterans, very many of whom had faced far heavier risks against the Sikhs, in the Crimea, and the Mutiny, than had either French or Germans (*i.e.* as judged by the only reliable standard, the casualty returns reduced to percentage and time), whilst they felt there was something wrong in the methods of the new school, were too little accustomed to close thinking, hard study, and controversial writing, adequately to meet their opponents. It happened also that through a series of accidents the latter had the Press throughout on their side, especially the 'Times.' To stand up against the new ideas, brought down upon one all the broadsides of the Special Correspondents, whose effusions were not always untainted with vituperation. Distinguished soldiers did not care to be held up to ridicule as 'bow and arrow generals,' and it happened that at the time there were a number of younger and more ambitious men in the Army who were prepared to stop at nothing to secure their own

advancement. The younger men won, and presently established a cult of their own, of which the Professors at the Staff College became the high priests, whose writings were their Divine Revelation, to criticise which entailed military excommunication.

Meanwhile, other factors were at work to destroy this intellectual ascendency. Independent of Promotion Examinations, Short Service, as in Prussia nearly a century earlier, was working out its logical consequences. Instead of recruits coming in by twos and threes, they began to arrive in droves, and the energies of the Sergeant-Major and Adjutant no longer sufficed to complete their education. This made work for the Captains and Subalterns, who under the old system in Peace-time had had nothing to do. Moreover, thanks to the increasing popularity of the Army, due very largely to the educative influence of the Volunteers, the new recruits were markedly more intelligent. Officers who had crammed up text-books for examination purposes soon found out that something more than examination knowledge was needed to impart instruction. Hence they began to use their brains. Constant campaigning also confronted them with problems for which no answer could be found in the text-books. When the young Officer, thus prepared by active service, arrived at the Staff College, he had a disagreeable habit of asking the most awkward questions. Then it was that the pundits of that establishment being either unable or unwilling to answer them, together with the failure of many Staff College graduates to justify their position in our minor campaigns, the Institution was brought into such discredit that some fifteen years ago the system was entirely remodelled with very favourable results.

Here let me record my appreciation of the British Subaltern, as I have known him, in all arms of the Service, during the past thirty years. Though only occasionally and temporarily attached to our educational establishments, I have been on terms of intimate friendship with hundreds, and have owed that friendship exclusively to my known keenness on all tactical and soldierly questions. I had no pronounced sporting proclivities, or the money to indulge in the

few that I possessed; the tie between us was our common interest in our work, and I found that interest as much alive, indeed, more so, amongst the noisiest Cavalry Subalterns, as in the staidest of the professional pets, and it was through these friendships that I learned where the educational shoe really pinched.

To say that they as a body were not willing to learn is a libel, and a cruel one. The real difficulty was that the books had nothing practical to teach them, and one needs to have been under the searching cross-examination and chaff of these youngsters, speaking as man to man, with all barriers of rank removed, after a big 'guest night,' to realise that the possession of the soundest common-sense is quite compatible with the profoundest ignorance in an examination.

The allusion to a 'guest night' may possibly provoke a sneer in some quarters, but I would remind my readers that so profoundly aware are even the Germans of the difference of capacity shown by the brain under excitement and in the lecture-room, that the 'Bier examen' forms by no means the least of the ordeals the aspirant for the Staff has to undergo in that most model Army.

It used to be said in Prussia, and with a good deal of truth, between the years 1866–80, that the Subaltern had made the Army. This saying entails less exaggeration when employed to the British Subaltern from 1870–90, for the Prussians had a Staff ready to guide them. We had to make the one that is now guiding us. Further, when the whole history of the recent Boer campaign is fully known, then apart from the aberrations of the very young, or occasional 'sports,' the fertility of resource and readiness to adapt themselves to the new conditions will prove the thoroughness with which we made it. Meanwhile, here I dwell on the merits of the 'Subaltern,' as it is from his ranks that Volunteer Adjutants have been, and will be, selected; and from the work they have done in the past their importance in the future may be estimated.

I do not think that the difficulty of their task has ever been adequately realised. When it is remembered that the selection for these positions was never made from the first

pick of possible candidates, that indeed they were often given to applicants who were frequently inspired by anything but soldierly motives, we can form, from the almost uniform success which has attended their efforts, a better idea of the value to the country of the training men receive in the Army. It is a training not written in books; it grows out of the surroundings of a well-regulated regimental system; and the same remark holds good of the Permanent Staff, by whom they are assisted.

In the main the Adjutant and his Instructors stood as the representatives of the old School of the Drill-ground. To support this were only the inherited traditions that *a man feels safer in the ranks of well-drilled men than amongst a rabble*, however gallant this may be, and that *good drill is more an outcome of the exercise of the habit of command than a consequence of the technical knowledge of execution.*

The Volunteers represented the right of private judgment and often of 'technical knowledge,' in which term I include exact knowledge of the words of the drill-book and other text-books, together with an overwhelming faith in the mechanical possibilities of their particular weapon.

Or, stated in other words, the Adjutant said, 'Obey orders and I will place you in the best position to use your weapons to effect,' and the Volunteer replied, 'No, the weapon is an excellent one, and we wish to use our own judgment as to when and where to employ it,' which, after all, is no parody of the views so copiously put forward in letters, to the 'Spectator' in particular, and other organs, during the progress of the War in South Africa.

This conflict is literally as old as history, and is best summed up in the following passage from Clausewitz: [1]

'All inventions of art, such as arms, organisation, exercise in Tactics, are restrictions on the natural instinct which has to be led by indirect means to a more efficient use of its powers. But the emotional forces will not submit to be thus clipped, and if we go too far in trying to make instruments of them, we rob them of their impulse and force. There must,

[1] *On War*, Graham's translation, part iii. p. 130.

therefore, always be given them a certain latitude of play between the rules of theory and its practical application.'

I consider that no better proof of the general soundness of our military institutions can be afforded than the success with which our young Officers have in countless cases during recent years solved this most difficult problem of adjustment,[1] although probably not one in five hundred had even seen the quotation I have given.

This same success, which, of course, I admit is only relative and far from final, brings out another leading tendency of Clausewitz's work—namely, his perception of the 'polarity,' as he terms it, existing throughout all military activity. Indeed, one might fairly generalise his whole book as an attempt to adapt the principles of the British Constitution to the conduct of warlike operations, for which, Lord Salisbury has told us, they are not well fitted. With all due humility, I submit that Clausewitz took a wider and scientifically a more defensible position, for, as in politics no line of action can be pushed to its logical extreme, so in War it is necessary to hold the balance evenly. If over-centralisation can lead (as we have seen in the instances of Prussia before Jena, and our own Army in more recent times) to utter stagnation, decentralisation carried to its utmost limit means hopeless anarchy. If overcrowding of men under fire leads to the purposeless slaughter of Macdonald's column at Wagram or of D'Erlon's corps at Waterloo, too wide dissemination leads equally surely to such useless sacrifice of life as at the Modder River and Paardeberg. The Art of the General, as of the Statesman, lies in seeing the correct mean, but to find it he requires an opposition. In War, the enemy does the opposing; in Peace, in a strictly hierarchical system, there is no opposition. From this difficulty the Volunteers have saved us, and will continue to save us, for finality can never be reached.

Their action can best be realised by comparing the course of evolution in England and in Germany during the past thirty years. To do this we must note that the latter started with over a million of War-trained men and a nation stirred

[1] Particularly in Egypt.

to its utmost depths by a vital struggle, where we had probably fewer than 50,000 veterans, and the calm of the English was only ruffled on the surface.

Contrary to popular theory, military education in Germany, even in Prussia, had been at a very low level for many years. How low this was the early pamphlets which followed the two campaigns abundantly disclose, for, as with us, the historical section had been starved for funds, and the Staff had been too busy with mobilisation projects to attend to it. Moreover, there had been no opposition; hence men had been crammed, or had crammed themselves, with formulæ the accuracy of which had not been tested either by facts or by argument, and contact with facts showed some at least to be fundamentally vicious.

As a consequence, after 1870, profound chaos ruled in the military world, and some years elapsed before the dust settled and a general consensus of opinions was reached. But these, as embodied by regulations, could only be usefully handled by men who knew the actual facts on which the regulations had been based, and as these men passed away by seniority from the direct training of the troops, their places were taken by men who were unable to realise the conditions which they had been framed to meet.

Fresh inventions in armament had complicated the problem, and outside public opinion against the severity of the discipline which the older Officers knew to be vital began to make itself felt. To counteract this tendency some of the older men were allowed to speak out. Then Hoenig, Meckel,[1] and others, as already stated, gave a true picture of what had happened in rear of the German fighting lines in 1866 and 1870. After these utterances equilibrium was again established, and research became limited to the historical section, whose labours now began to disclose the fundamental fallacies of the German position. This work was almost entirely restricted to the retired Officers, for the questions involved were ticklish, and Officers on the active list could not well discuss them publicly without revealing their habit of thought to their adversaries over the frontier.

[1] For extracts see *infra*, Chap. XIV., pp. 297–8 *et seq.*

This point deserves to be noted; *for the greater the degree of equality attained by Armies in weapons and organisation, the more valuable does a knowledge of the character and mind of a possible opponent become.* A man can hardly contribute magazine articles on Napoleon or Wellington, or write his autobiography, without disclosing very completely his intellectual limitations to his adversary. As a consequence, therefore, the field of intellectual activity tends to become limited to those who are no longer in touch with the troops, and it ceases to afford a reflection of their standard of thought and action.

The necessity of the precaution is obvious from the soldier's standpoint, but from the statesman's point of view, viz. that the object of armaments is primarily to prevent War, it is at least open to argument. I hold that in a growing nation it is better to know the whole truth than to be lulled into a false security, and in the end history justifies my position.

There never were two Armies in which the personal factors were better known on both sides than in the American Civil War, but the ultimate course of events was not modified, and in the long run the popular voice brought the right man to the front at the critical period. As between continental States there may be no 'long run,' but between England and her possible enemies the 'run' is likely to be sufficiently protracted for our purposes.

Our War will follow the American model, and its prototype the Cromwellian epoch. First, an initial series of defeats which will eliminate the incompetent; then will arise a surging wave of national indignation against the ignorance and incapacity of those who, under the guise of a false humanitarianism, relaxed the reins of true fighting discipline; and at the psychological moment will come the emergence of some great Leader or Leaders. These, like Cromwell, Grant, and Sherman, recognising that 'War is Hell,' will throw overboard the pitiful sentiment 'if we fail we cannot lose many men,' and by sheer hard fighting will win all along the line as all great captains have always done.

Meanwhile the duration of our agony will be in precise proportion to the determination of our present rulers to make the most of the warning we have received. Let us trust that they may be more successful than the Prussians before Jena.[1] The analogy here, however, is too close to be comforting.

It is the existence of the Volunteers which alone differentiates the two situations. They are to the Army what the Opposition is, or should be, to a Government, for they are free to speak and to criticise, and without their criticisms we should, like every other Army, drop back into self-complacency and a blind worship of the regulations. The reason 'why' I trust I have made clear in the previous sketch of the German Army.

Short service and the responsibility entailed thereby have done much in their case to prevent stagnation, as it will still do in ours. But, though the hopeless decay into which long-service Armies generally fell during long terms of Peace is no longer to be feared, that cannot alone suffice. This becomes clear when we see that the intellectual effort of teaching the quite undeveloped minds of recruits is not sufficient to ensure the growth of the intelligence of the teacher. In his turn he is exceedingly apt to fall back into mere pedantry, when he has discipline behind him as a stick to enforce authority.

You cannot deal with Volunteers, particularly with their Officers, on the same lines. These men possess, many of them, keen and polished intellects, which must be fairly met and overthrown by downright scientific proof, if they are to be won over to what we naturally hold to be the true faith. Hitherto, as a fact, the Volunteers have very often got the best of it simply because Army methods had never before been subjected to such searching criticisms, and Regular Officers had forgotten the arguments with which to counter them. When a learned K.C. or Chief Justice drops down from the Temple to confront the Royal United Service Institution audience, it is a very easy task for him to upset our most cherished traditions in debate. The only course is to attack his brief; but that is not easily done by an untrained

[1] See particularly von der Goltz's *Roszbach und Jena*, new edition, 1906, and *Urkundliche Beiträge* published by the Prussian G. General Staff.

speaker on the spur of the moment, and for the time his victory seems complete. But he has given the stimulus for further inquiry, and under that stimulus reaction is thriving. Presently it will occur to someone to test the truth of existing assumptions—by the above-mentioned ten-target[1] experiment, for example. Directors of Instruction at Aldershot, and elsewhere, will create situations in manœuvres which will set men thinking, and further debate will bring out the inherent unsoundness of many accepted theories, and pave the way for the wave of reaction that is assuredly coming.

No other nation possesses this safety valve. With them the forms of discipline must be preserved, both on account of the necessity of readiness for immediate action, and because, in monarchical countries, the monarch being also the War Lord, if the military machine breaks down you must depose the Sovereign. With us you only change the War Minister, or, at the worst, the Cabinet.

[1] *Vide* Chapter III. p. 45.

CHAPTER V

WHAT BECOMES OF MONEY SPENT ON MILITARY PREPARATIONS

WHILST the member for Woolwich is beseeching the Government not to discharge workmen from the Arsenal, others of the same party are clamouring to reduce the Army by 20,000 men. Surely this betrays a lamentable confusion of thought somewhere, and one worth a considerable effort to clear aside.

It raises in brief the whole question, 'What becomes of the money spent on military preparations?' and it is astounding that no economist of repute has ever devoted himself to a clear exposition of all the facts concerned in the matter.

The simplest plan is to consider what would happen if the millennium arrived to-morrow and the Army and Navy were abolished *ipso facto*. In the first place there would be in round numbers some 350,000 able-bodied men thrown on the labour market, which is already over-stocked. But this is only the beginning of the trouble. These 350,000 men require food to eat, barracks or ships to live in, arms, clothing, equipment; and even their horses require forage.

How many thousand families are dependent on the above industries in their turn, over and beyond the Dockyards, Arsenal, and Small Arms Factories, which employ together close on 75,000 men! There are the people at Elswick, Sheffield, Yarrow, Barrow-in-Furness, and elsewhere; and again dependent on these huge factories are the men working in the mines extracting the coal and ore to be used by them. There are the builders, contractors, and all the many thousand small traders supplying the needs of the garrisons, and the farmers breeding horses and growing hay and corn for the Cavalry and Artillery. If we place the total of all these dependents on the Army at 150,000 we shall

probably be within the mark. This gives us a grand total of 500,000 men, or about 1 in 20 of the adult male population directly dependent on Government employment. Finally, on the whole, these men are the best and most reliable which the country possesses, for casual labour is practically never taken on by any Army or Government Contractor.

Where would all these people go to and what would become of the 'submerged tenth,' seeing that *even now trade is languishing*[1] relatively to that of our rivals because people are not willing to buy the goods we insist upon making?

The stock reply of course is that but for War and the wicked waste it entails, nations would have such abundant wealth that they would gladly purchase anything, but it seems to me useless to theorise about what would happen under circumstances of which we have had no experience, as yet; circumstances which seem very unlikely, to say the least of it, to arise in the future. The better plan appears to me to take the case of some special implement in universal demand, and of relatively great indestructibility, and trace out what would happen if a factory were established to turn out such articles with almost infinite rapidity. There would be a period of great activity, the demand would soon be supplied, and then, if the article did not wear out, the work would be limited to supplying the increment of population—not much margin for the payment of dividends! Multiply this case by many hundreds, and presently the whole earth would be over-stocked and trade would become stagnant.

In practice the danger of 'over-stocking' is distinctly and clearly realised. The efforts of merchants to unload their wares is by no means one of the least causes of our many small Wars which often very narrowly escape developing into great ones. The first thing a sound business man endeavours to secure before laying down new plant is the certainty of a sufficient and uniform demand, *i.e.* exactly what the Army supplies. Hence the popularity of Government contracts, which thus furnish the best possible guarantee for a nation's industrial continuity. Suppose, for instance, that the Fashoda

[1] See Mr. Holt Schooling's analysis of British trade in the *Morning Post* of April 20, 1907.

crisis had developed into a European conflict, and note the consequences which must have ensued had we been less well prepared than as a fact we were. We can form some idea from the catastrophe which occurred in New York as a consequence of the Venezuelan difficulty, when in forty-eight hours stocks depreciated to the extent of 2,000 million dollars. A few days of such a run as that would have broken down every vestige of commercial credit in this country; and it would have thrown millions out of employment. The inference therefore is that the money spent on our Fleet and Forces generally was a wise precaution, since but for the drain upon our resources which they constitute in Peace, the climax would have been precipitated by trade pressure; and but for the security they afforded our collapse would have been inevitable.

What it all comes to is this. In Peace the taxpayer pays a premium to avert the risk of War; and as long as War is averted the Nation is none the poorer for the expenditure, since the money all circulates in the Empire. But if the premium is insufficient the danger of War is aggravated, because as capital free from taxation increases production the demand for new markets tends to bring us into collision with other Powers and involves risk of ruin by so doing.

The Navy and Army, therefore, are the foundations of commercial credit, and, as every engineer knows, it pays to put good work, and enough of it, into underground work.

From this it would seem to follow that if each Nation could accurately determine the proper ratio between expenditure and trade suited to its existing situation, the maintenance of Peace might be guaranteed indefinitely; certainly if their populations remained everywhere a constant quantity, this result would necessarily follow. Unfortunately for the cause of Peace they do not so remain, but, on the contrary, exhibit the most startling contrasts in their rate of growth. These contrasts are sufficient in themselves to disturb the national equilibrium, even without human passions to sway them; also there is another law at work tending still further to complicate the problem.

So far it is most likely that all men who think seriously on international problems will be agreed. Differences only

arise when we come to the questions of how much money to expend, and who is to find it.

It will be more convenient to the general plan of this book to take the latter point first.

Actually when one comes to look into the matter, whoever it is who hands over the money required to the Exchequer, is, with a few limitations to which I shall presently allude, of no importance to the individual at all, for in whatever form a tax is imposed the payer passes the charge on to the next man below him. If a house-tax is imposed, the landlord grumbles and works what Parliamentary influence he has for all it is worth, but he promptly raises his rents to cover the additional charge. Road-tax, lighting-tax, whatever it may be—local or Imperial—all come down to the consumer at last, and he either has to work harder to maintain his self-appointed standard of comfort, or he must lower that standard to meet the increased cost.

Even the income-tax ultimately bears hardest on the poor, for the man who pays meets its increase by discharging superfluous hands or cutting down their wages. It may, and generally does, inconvenience him to dispense with their assistance, but it is far harder on the discharged man who has to find work in an over-stocked market.

In the end it is, and must always be, the poorer classes who suffer most, for they cannot pass on their burdens, but must adjust themselves to their surroundings as best they can. The lot of the weakest is always pitiful in the extreme, but it must be borne in mind that it is, like all suffering, *individual, not cumulative.* It is really localised in the family; but a word to cover the conception is wanting—a curious revelation of the insufficiency of our vocabulary for our actual needs.

This sentiment will appal our humanitarians, but it is the bedrock fact of the situation, for Nature as she reveals herself to us is 'cruel,' and it is with Nature that the statesman, like the hygienic reformer, ultimately has to deal. Statesmanship is National Hygiene—nothing more or less—and it would be well if this truth were more widely realised.

The only point which can concern the Chancellor of the Exchequer in imposing new taxation is the general ability of the nation as a whole to bear increased burdens, and his only guide is a comparison with what has been borne in the past.

From this point of view the present outcry against excessive expenditure is seen to be quite unjustifiable. Fifty years ago the price of necessaries was more than one-third higher than at present, and wages on the average were a good third lower, yet we lived, and, as statistics show, we throve remarkably well, for the birth-rate was higher than it is now.

Recent statistical investigations, carried out in the truest spirit of scientific inquiry by Mr. Charles Booth and Mr. Rowntree, have shocked the public conscience by the depths of poverty they reveal. Unfortunately these works stand alone of their kind, and we have no earlier information, compiled to a similar scale, to compare them with, either in our own or in other countries.

Of London I personally know next to nothing, but it happens that I do know a good deal of York and the West Riding. I can recall with the utmost distinctness the impression left on my mind as a child about forty years ago, and I would put it to those with much longer memories whether the improvement in cleanliness, health, and general stamina of the West Riding population since Doctor Hook began his great work on reform in Leeds (1850) is not altogether phenomenal ?[1]

I know also from personal observation a good deal of the poverty of the great cities on the Continent, where heavy protective taxes rule and wages are lower, and where the load of national debt[2] is very much greater. Yet the birth-rate of Germany exceeds that of England, and the bulk and stature of her recruits are known to be steadily improving. In France things are otherwise, but the causes of the low birth-rate complicate the question beyond my power to unravel.

[1] If poverty is as great as these books indicate, how is it that the dearth of domestic servants is greater now than at any previous period ?

[2] The German Imperial debt is very low ; to get a proper standard of comparison the separate debts of all the States which go to make up the Empire must be added together.

Still, even here the average physical development of the first 100,000 of the yearly contingent is improving; and if in the latter portion it is declining, this is due to the increasing demand for numbers beyond the capacity of the nation to produce. Two explanations of the observed facts suggest themselves to me. Either we do not yet know enough of the physiological action of foods under all conditions of work, light, and environment generally, to fix an arbitrary standard of dietary below which poverty commences; or the greater facility with which money is earned, and its increased purchasing power, has led to a deterioration of the character of the race in these large towns. Where formerly [1] men struggled fiercely to avoid starvation, they now spend their time in waiting for work to come to them, and of course the women and children suffer first and most.

With regard to the first, I submit the following facts for consideration. It has been asserted again and again, and proved as far as chemical analysis can prove it, that the dietary [2] of the British Bluejacket is inferior in work-producing elements to a pauper's food scale. Yet the Bluejacket does harder work than any man in the kingdom, except his comrade of the Marine Artillery, who, though a much heavier and bigger-limbed man, only draws the same ration. The merchant sailor is generally worse off than either, but even he works and keeps his health, on the whole, satisfactorily. Neither German nor French soldiers are as well fed as our own men, and the cooking of the former is only little in advance of ours. Yet both of them accomplish daily marches under a full kit which we can only exact from our men of equal age on active service.

Finally, look at the marches made on active service by our men in recent years in Afghanistan, the Tirah, and South Africa, on rations at which a pauper would turn up his nose. Even with the burning sun against them, with water scarce and of the worst kind, they keep their health against every-

[1] See also Mr. Wilson Fox's Paper at the Royal Statistical Society, April 21, 1903. Agricultural wages, etc., in 1834, 9*s.* to 10*s.* a week.

[2] This dietary has been in process of revision for some years, and promises now to attain a very reasonable standard.

thing except specific poisons, and march back into quarters often fitter than they went out.

On the second point much might also be said. I have seen the West Riding colliers, in the full swing of a coal boom, living on the best and 'playing' half the week. I have also seen them 'clemming' in a strike and refusing 3*s.*[1] a day and a hot meal for sweeping snow in the street when they were offered to them, and I cannot bring myself to believe that their standard of comfort is as high as Mr. Rowntree places it. If it were, they would show more providence and greater energy.

It is a very great question, in fact, whether such prosperity as we have now been enjoying for many years makes for the highest ethical good of the community or not. Does History show a resultant moral force making for the survival of the Race, so that it develops most in climates and under circumstances where the necessities of life are easily obtainable? In that form the answer is more readily seen. One after another the civilisations of the South have gone down before the stronger, sterner characters of the North, and it is impossible to suppose that this has happened without the approval of Providence; in more scientific language, without the manifestation of the same natural law which we recognise as at work in all the living kingdoms around us. And this idea is further borne out by the tendency which this same sudden increment of comfort and luxury in living has to bring about its own correction.

No one who has seen the natives of India struggling against famine, or who can recall the conditions of life in Germany before the War of 1870, or in France immediately after it, can have failed to observe how community of suffering tightens the bonds of family union; even though in Indian famines there comes a time when a reverse current sets in. The family is generally conceded to be the ultimate molecule on whose integrity the maintenance of civilised existence is dependent. Certainly suffering is still the best school of duty, religion, and respect for authority yet discovered.

[1] In Lancashire, 1906–7. They refused 4*s.* in several townships.

Year after year, however, we have seen this ultimate tie in England dissolving. First of all, under pressure of factory work, its maintenance became impossible for the mill hands, and this fact led in due sequence to the relief of parents from their responsibility for their children's education. In due time, of necessity, as Herbert Spencer long ago pointed out, will follow free dinners and clothing for the children. Most probably the 'submerged tenth' (to use an inaccurate but convenient expression) is the first instalment of the price we have yet to pay; for if parents neither feel nor show a sense of responsibility towards their children, it is not to be expected that the children will afterwards manifest much sense of responsibility to their parents, with the consequence that 'old-age pensions' already form a plank in the Socialists' platform. It is fairly clear, I think, to those who have looked beneath the surface, that most of the poverty so much lamented is due to want of continuity in family ties. At any rate, its incidence would not be so cruelly felt if the tie were still in existence; for nothing lessens individual suffering more than strong family sympathy, and both the French and Irish can teach us many lessons here.

On the other hand, freedom from invasion, at the beginning of the century, conditioned the growth of our great manufactures. These in turn required our people to go out in search of markets, which they would not have been so ready to do had the family tie been stronger. But this driving force remaining in full, possibly in increasing, activity, is now bringing us into contact with other civilised races, also struggling for fresh outlets for their commerce, and now that we have become accustomed to a standard of living markedly above that of our rivals, we are the first to cry out against the pinch of competition. Our attitude, which foreigners very naturally regard as that of the dog in the manger, is certain sooner or later to bring us into conflict with one or more of the other great nations.[1] The result will probably show which is the stronger form—'duty' as taught in the family circle, or 'duty' founded on a sentimental attachment to a Flag, the

[1] Including in the not far-distant future China and Japan. Then we really shall begin to find out what the 'struggle for survival of the fittest' means.

strength of which we all feel, though few even know how to hoist it.

The whole object of my book is to establish a reasonable ground for confidence in the superior strength of the sentiment; but I admit the balance is a delicate one to hold.

If Military History teaches one thing with greater insistence than another, it is the all-prevailing power of a superior sense of 'Duty.' In these days of rapid mobilisation, instantaneous readiness for action is of far greater importance than it formerly was, and it is precisely in the relative absence of this sense due to our escape from Universal Service that our principal weakness lies. If we fail, duty, in its highest sense, will be the link of the chain that will break, just as it was the one which saved us a century ago. But it seems, nevertheless, as if Nature was at work building up within us a more complicated and more efficient ultimate 'molecule' of the State than the family—by the same law of the survival of the fittest. It now needs only time and the increased pressure of taxation to accomplish it, and there are signs which point towards that time being allowed us.

Or the converse principle may be at work, and a State formed on the tenacity of the 'atom' may be the final design. The diamond is the hardest known substance, and also owes its origin to heat, *i.e.* impact of atoms and pressure. But Nature generally proceeds from the simple to the complex, and against the 'atom' view the conduct of troops in the field appears to tell heavily. The old armies were 'atomic' in the highest sense. They were held together by the cohesion imparted by discipline, almost in its lowest form—*esprit de corps* and fear of the stick—yet they would march unmoved over the bodies of their comrades to almost certain death. Modern armies show no such stoicism in the regiment, but, considered apart from any question of armament, they often show a higher actual heroism.

The hope for the race seems to me to lie in the examples of those British soldiers in China, at the time of the Parke[1] tragedy, who died sooner than abjure their nationality; or in

[1] The expedition to Pekin, 1861.

such instances of superb and conscious self-sacrifice and discipline as were shown in the wreck of the 'Birkenhead' and the loss of the 'Warren Hastings.' Again, it is evident in the splendid self-devotion of the men of the Shropshire Regiment, who in 1897, when the plague was raging in Hong Kong, volunteered for duty in that pest-infected city, quite unconscious of their own immunity, which even the doctors did not suspect at the time.

No, without doubt some extraordinary ferment is at work in our midst at present, though in what form the molecules (or perhaps 'cells' is really the proper analogy) will aggregate it is impossible to foretell. But the need which additional taxation will impose for harder, more concentrated effort, and the more general psychologic training of the drill-ground, which changes in organisation and armament must of necessity soon bring forth, can only in the long run work for the good of the community—that is to say, if the law of evolution as revealed in modern history applies.

In the end, then, increased taxation means either harder work to secure the same standard of living, or a lower standard for the same work, and I have shown that there is room for either adaptation. The Unionist or Imperialist who stands for efficiency cannot reasonably object to paying for it, and the Socialist or Labour member cannot logically oppose the use of his own favourite axioms, viz. that it is the duty of the State to find work for the unemployed; for every man taken off the labour market for military purposes makes it easier for another to find work, and the greater the territory under the Union Jack the greater the market, hence the greater the demand for workpeople.

The truth is that the Socialists base their views on old-fashioned ideas of political economy, the very foundations of which were swept away and rendered obsolete by the French Revolution, almost before the books which formulated them had left the printing presses.

The matter is of such importance, and has been so uniformly overlooked in this country, that I shall not hesitate to deal with it at considerable length.

Looking back at the names of the founders of the original

science, Adam Smith, etc., we see that most of them belonged essentially to the bourgeois class, and not one of them had ever handled executive power, or learnt from experience to understand the nature of the forces then moulding the policy of Cabinets.

Considering the facility for preserving secrecy in diplomatic matters then existing, and the importance attaching thereto, we have little ground for surprise at the circumscribed nature of their horizon. We can easily enter into their line of thought.

To them Wars appeared purposeless interference with the course of Nature and the doctrine of 'peace on earth, and good will toward men.' Why could not the peaceful peasant, the honest tradesman, be left in the quiet enjoyment of their harvests and the returns brought in by the fruits thereof? They did not in the least understand the sequence of cause and effect, a sequence that had induced changes in military evolution which alone rendered this standpoint possible, and which was quite foreign to the minds of their forefathers a couple of centuries before. To these War had been a very terrible reality indeed, against the evils of which no possible precautionary expenditure appeared excessive, as the monstrous dimensions of the defences they willingly erected bear witness. What modern State or town has ever expended such a proportion of its labour and wealth on fortifications as were lavished by Free Towns, as well as others, during the seventeenth century, to protect their inhabitants from the horrors of a sack?[1] But the hideous barbarity which characterised the fighting of the Thirty Years' War in the end defeated its own purpose. Central Europe became such a desert that Armies could no longer move therein. There was nothing left for them to live upon.

It became necessary to create roads, to organise, to supply trains and magazines, and, above all things, to conciliate the

[1] Compare in particular the depth and volume of the ditches surrounding the older portions of Mayence with those excavated since 1780. This is one of the most extreme European instances that I am acquainted with; but for an extra-European instance following the same law, see the defences of Malta, and particularly of Valetta.

peasantry and encourage them to cultivate their land and bring its produce to market.

Moreover, religious differences having been adjusted, the causes of War became 'territorial'; it no longer suited the purpose of either side in principle to wreck, destroy, and depopulate the very district each hoped to acquire.

Hence, during the first half of the eighteenth century, an extraordinary revulsion of feeling in favour of extreme leniency in War set in; extreme even according to modern ideas. The conventions as to respect for private property, not firing into towns, allowing the women and children to leave besieged places, and so forth, all owe their origin to this particular period, and they have since been swept away by the irresistible logic of events in recent great European conflicts.

Moreover, as I have explained above,[1] War being chronic, or nearly so, the specialised highly-trained veteran was worth very many recruits, and it became more profitable to attract these specialists to the Colours by high pay and good treatment, and to let the labourer continue at his plough or loom.

Hence step by step the civilian became divorced from the soldier; he no longer shared in the common duty of protecting the soil, and since it was to the interest of both combatants to respect the civilians' rights of property, the latter became quite indifferent to the cause of quarrel. The truth of this cause being known only to an exceedingly limited circle of reliable persons in the Sovereign's confidence, the very acute minds at work outside had generally little difficulty in showing the flimsiness of the arguments put forward to justify hostilities. Thus arose the eighteenth-century conception of War—no longer the 'struggle for existence,' but the pastime of wicked monarchs and their mistresses, an illusion which exists in our own country amongst a very large section of intelligent persons even at the present day.

Hence the conclusions of the political economists easily and naturally followed. 'We, the honest citizens and toilers, only wish to be let alone in peace to exchange our products; remove from us these idle parasites of soldiery, and restrict the senseless expenditure on works which no one desires to

[1] Chapter I. p. 5.

attack, and the golden age will return never to leave us again.'

The position is at least intelligible, but unfortunately it failed entirely to take into account the human passions still existing in the minds of the honest citizens. The pinch of competition had not begun to be felt, because War, and the feeding and clothing of the national parasites, had prevented the markets from becoming over-stocked. They did not foresee that capital was to become as cruel a taskmaster as any feudal lord, and that, under the sacred banner of the rights of the individual, iniquities as black as any laid to the charge of mediæval monarchs were about to be perpetrated.

Even assuming that the devastation of the New Forest was the mere gratification of a monarch's whim, and not a sacrifice to military necessity, which, in so far as there was any devastation at all of this geologically barren district, is far more likely to have been the case, surely it bulks small against the ruin of Irish industries already in progress when Adam Smith wrote. It may well be doubted also whether the French feudal laws, at their worst, inflicted greater misery on the people than the untrammelled action of the 'laisser faire' school (which Herbert Spencer defends) brought upon our unfortunate working classes in the dark years before the Factory Acts; from the consequences of which Acts we are still suffering, as our recruiting returns only too clearly show. It is not so much the present condition of our great manufacturing towns, bad as I know them to be, which are responsible for our alleged physical deterioration, but the surroundings and circumstances under which the fathers and mothers of the present generation were reared which are now bearing fruit.

If things are and have been bad in our own towns, they are as bad and I believe from personal experience far worse in the corresponding towns of both France and Germany, and, as usual, in all three, it is on the women and children that the load principally falls. If people want to realise what the life of the working classes in the great towns on the Franco-Belgian frontier is, let them read 'Germinal' and kindred works. As for Germany, especially Saxony, they will find a literature, not

imaginative, but scientific, which will suffice to make them sick with disgust and misery. I remember, in Berlin, asking a man employed in my office, an ex-sergeant of the 'Garde-Jäger' and a most accurate and trustworthy observer, whether the statements of some of these books relating to his own district could be accepted. He assured me that they were well within the mark, and added, 'They tell us about all we have gained from feudal emancipation, and particularly the abolition of the old "droits du Seigneur," but I assure you that that was nothing to what goes on now. Instead of the Lord of the Manor, who for centuries had scarcely asserted his rights, now it is every foreman and employer who only promotes men in his works in return for favours received from pretty wives and daughters.' And the truth of this statement was abundantly confirmed to me by my friends amongst the officers, to whom their former soldiers often came with the most pitiful stories and requests for advice. It must be remembered that good officers in Germany are worshipped and trusted by their men as probably in no other country in the world, except perhaps amongst the fighting races of the Punjab; and German soldiers are very simple lovable souls, who go as naturally to their Captains in trouble as an Irishman goes to his priest.

If internal trade competition, restricted by law and the police, can heap together such aggregates of human degradation and suffering, what must we expect when with growing populations and facilities for interchange of goods, international competition becomes really acute? Can anyone suppose that the elemental psychic forces then let loose can be restrained by our antiquated diplomacy? Or that a proud and supremely self-conscious race like our own will submit to starvation at the dictation of arbitrators without power to enforce their award? The idea merely needs to be stated to disclose its weakness. Inexorably, then, it follows that without that organisation for War against which the Socialists declaim, there must ensue the aggravation of the very evils they are, I believe, earnestly endeavouring to remove.

If Wars were to cease in all the world, and trade to flourish and luxuriate free from all restrictions, it must be clearly

evident that competition in every field would be enormously intensified. But success in competition is no longer guaranteed by the steady plodding industry of the primitive handloom; it is by organisation, subdivision, and concentration that it succeeds; and how do the Socialists propose to teach their young hands these necessary elements and all that they involve?

I submit that if no Army existed they would have to create one, simply as a schoolroom for the factory.[1] But their creation would never do equal work with the one that has grown out of its natural surroundings. How is it that our politicians and leader-writers, of all parties, cannot recognise the simple fact that in any civilised State the Army (and, of course, the Navy) is nothing more than a preparatory school in which men are trained to co-ordinate all faculties towards the achievement of the most difficult and arduous work to which men can be applied? How is it that they do not understand it to be a work which calls for the highest and noblest qualities of which human nature is capable? Men kill nowadays by accident[2] merely; they die and suffer for duty, and the success of all future industrial combinations rests ultimately on the evolution of these same high qualities.

Under pressure of competition the country is crying for more education, both primary and secondary; but both are equally useless, indeed actively injurious, without the ideal of 'duty' and the power of concentration to control them.

The growth of industrial combinations has killed the factor of self-interest on which the early economists relied. Where does self-interest come in, in the case of a man earning 24*s*. a week, fixed by the custom of the trade and the law of his union? But each of these men has in his hands, in variable degree according to the nature of his employment,

[1] I find that Bebel himself admitted this point in a speech in the Reichstag in 1893.

[2] *Vide* the number of bullets required to kill a man nowadays. Instances are on record where upwards of a million shots have been fired for only half a dozen hits—none fatal. It is becoming increasingly difficult to find men able to kill even in hot blood, with cold steel. Crete and the Boer War furnish instances, but to fail to kill, when legally ordered to do so, is treachery to one's country of the worst description.

the power of damaging his master's property and interests to a very great extent, and ultimately what is there but his sense of duty to restrain him? In the old days of mere manual labour, when tasks were easily distributed and measured up—So-and-So to dig so many cubic feet of earth, So-and-So to carry so many loads—the lash of the slave-driver amply sufficed to keep each man up to his work. Nowadays the fear of hunger and destitution keeps many a man going from fear of dismissal, and induces him to abstain from acts of downright rattening. But it is not so easy to prevent minor acts of shirking or neglect, and the cumulative effect of many such acts (which come about almost instinctively to educated but undisciplined men) are hampering and ruining trade daily in many directions. The loss can best be estimated by a comparison of the working power of a highly disciplined organisation, such as an R. E. Company, engaged on some such work as the reconstruction of a railway bridge, and that of a party of civilians collected for the same purpose, each working party to be directed by the same man. The latter would be equally as skilful at the type of work required, but would not possess the habits of obedience and solidarity acquired by the former. Having had experience of both classes of work, I am in a position to form a fair opinion.

The commander of the company, having decided on the work to be done, has practically no further trouble. He marches the men down to the spot and almost automatically everything arranges itself. The tools are at hand and are unpacked, the cooks set about getting the meals, and the Officer can give his whole attention to the technical side of his present task, or of the next one ahead, for the fact of his presence is sufficient to ensure that everything will go with perfect regularity. The idea of even possible disobedience never enters anyone's head.

With the civilian party all is different. The design of the work is, in this case, less than half the battle. The detailing of the men in squads, the appointment of foremen, the men's food, pay, clothing, everything has to be arranged for; and often from hour to hour there is no security that the men will not individually, or collectively, strike for higher

pay, or make trouble about taking orders from some overseer, etc. It is an endless strain on one to adjust all these difficulties, and all this means the loss of directing abilities which at a crisis might be worth hundreds of thousands of pounds. There was once, for instance, on the occasion of the explosion of some powder magazines near Erith, a fight to close the breach in the sea-wall against the rising tide of the Thames. The case seemed to be hopeless until a Sapper company arrived from Woolwich. Then the situation was saved. Another instance was when an unusually high tide in the Medway threatened to break and flood the new Dockyard extension works at Chatham. Two millions sterling were at stake. Fortunately the crisis was very short, too short indeed to send for Sappers; but whilst it lasted what would the contractor have given to see organised disciplined labour on the spot?

All this refers mainly to outdoor work. But in factories and offices another side of the soldier's training, viz. 'Concentration,' is equally valuable, and actually lies at the root of all 'efficiency' in every department of life, for even elementary education cannot work satisfactorily without it, though the influence of the soldier's training here is more difficult to indicate.

First let us understand the full meaning soldiers intend to convey by the words 'discipline' and 'drill,' for the dictionaries take us only half way.

Many centuries ago it was discovered by practical experiment on countless battlefields that men exercised to perform certain evolutions in a prescribed manner became in consequence more reliable and better tools in the hands of their Leader. This was almost in precise proportion to the concentrated energy which they were taught, and compelled, to put into the execution of their orders—*i.e.* in proportion to their 'smartness.' They would stand up to punishment from the enemy better, and would perform every duty of a soldier more exactly, and for a far longer period, no matter under what privations and hardship, when well 'drilled' than when not drilled at all. Although no psychological explanation was then forthcoming, or in the then existing state of science even conceivable, soldiers accepted the facts as they

found them, and to the present day it is the first article of military faith that 'discipline' is the first of soldier-like virtues, and smart 'drill' the means to that end.

Never having experienced in person the force of this power, which no test but that of flying bullets and charging Cavalry can really adequately record, and misled by such occasional incidents as the recent Boer War, and other successful risings of peasantry determined by other causes not apparent to the superficial investigator, civilians as a body have denied the merits of 'drill' and have assigned to 'discipline' quite another meaning from that which the trained soldier attaches to it.

Nowadays when Marconi, and other inventors less before the public but equally meritorious, have familiarised people with the idea of the transmission of energy by invisible vibrations, it is possible to attempt an explanation by analogy which is not more far-fetched than the accepted comparison of electricity with water. This is a comparison which suffices to render intelligible to thousands the action of that mysterious fluid which we cannot see, handle, taste, or smell, but about which by way of experiment we can predict at any rate a great deal of what there is to be known.

We do not know what 'thought' is, but we do know that 'thought' is only conceivable in animal bodies developing 'energy' as a result of the combustion of tissue, and that this energy must dissipate itself outwards in vibrations like the ripples of a pond disturbed by a stone.

We know also that unspoken thought can be transferred from brain to brain, as occurs in many hypnotic phenomena, the only essential condition appearing to be the voluntary surrender of the receptive to the influencing mind. Thus having induced an hypnotic condition in a patient, it is quite possible to make him write down the operator's dominant thought. Hence the inference is fairly justified that the brain contains something in the nature of a Marconi receiver, which has merely to be tuned or synchronised to register an external impression.

This is the fundamental conception of the drill-ground. On the word 'Attention' every muscle is supposed to be fixed,

the body poised, and the faculties of the brain alert to their utmost limit, so that everything is in readiness to execute the word of command with the utmost energy. This energy, called into existence by the will-power necessary to the execution of the command, again vibrates outwards, acting and reacting from brain to brain in such a manner as to compel the obedience of the careless, the weak, or inattentive.[1]

That such a psychological force, derived from the cumulative action of many minds one upon the other, exists, is evident from the observed phenomena in the case of mobs and crowds. In these it is well known to acute observers that a sudden impulse will sweep away individuals and lead them to the commission of acts of cruelty, heroism, or mere physical exertion, quite inconceivable to the individual actor. Men in panic flight have ridden over ground and surmounted obstacles which in cold blood not one of them could have faced. I remember an old friend who was present at the retreat from the Zlobane Mountains, in Zululand, on the occasion when General Buller gave an exhibition of cool heroism and determination worthy to rank with the conduct of Ney in the last effort of the French rearguard when covering the retreat across the Niemen. This friend candidly owned that if he and all the others had shown the same pluck in holding on that they did in getting away, the result might have been very different, and that to the end of his days he would never be able to understand how he succeeded in forcing himself and his horse over those awful rocks.

Without, however, going to these extremes, anyone who has ever had to address a meeting, preach a sermon, or give any other public performance, knows quite well his gradual change

[1] It would be nowadays quite possible to construct a really automatic Regiment, of which the Commander should be the sender, and each private a Marconi receiver. As the etheric disturbance spread from the sender, each receiver would set in action a relay battery which would furnish the mechanical power necessary to load and fire a gun in any desired direction. These automatic soldiers would look rather startling with long wires projecting above their heads, but the idea might well be adapted to a battery of heavy guns posted in certain positions where white gunners are scarce, and electric cables expensive. But though you could make machines to load and fire, no one has yet made a really satisfactory walking man to get over all kinds of ground, let us say like a Ghurkha.

of sensation as he captured his audience—or failed to do so. This is the force the soldier strives to guide and control by means of 'drill,' appeals to patriotism, fanatic hatred, cupidity, revenge, and every other stimulus that his knowledge of humanity may suggest to him; and how overpowering this force can become the records of all civilised warfare sufficiently attest.

Further, as a matter of experience, it is known that the larger the numbers concentrated for a particular act the greater the power evolved, and this explains the preference shown by many most highly qualified Leaders for the monster columns frequently seen towards the close of the Napoleonic epoch. It was not that the French Marshals were indifferent to the slaughter they involved — good soldiers never waste life uselessly—and, had they even been inclined to do so, Napoleon held them far too strictly to account for men expended. But they had to win, and as the quality of the French Infantry deteriorated, they were compelled to employ ever denser columns, because experience showed them that these were cheapest in the end. They knew the risks they ran, and deliberately made their choice, not always wisely, as Waterloo proved. But the list of French victories shows that they were more often right than were their opponents. This, indeed, remains the standing tactical problem of all ages, how to get men enough together within efficient killing distance of their enemy; and whether that distance be 4 feet or 400 yards, essentially it always remains the same; and of all means towards its solution, discipline through drill is the surest and most reliable factor to work upon.

Now it is a matter of observed fact, noticed and recorded by every soldier, that it is not so much the word of command itself, or even the tone in which it is uttered, as the intense vital energy of the man who utters it, which secures good drill, *i.e.* evokes the strongest responsive thought-wave; and every man finds this out for himself when he first attempts to command. The faculty seems born in men in most variable strength. I have seen Officers, not without some training, and of very high intellectual ability, literally turn pale and

stammer when first confronted with a strange battalion. These men could have passed any examination, and could have beaten the remainder of us with ease, but as Officers they were very much out of place. I mention this point to indicate what caution is needed in employing written examinations to decide an Officer's promotion. It very sufficiently accounts for the prejudice the Army has always displayed against this method.

Once, however, the initial 'troop shyness' (strictly analogous to stage fright) is overcome, the mere handling of men already drilled by someone else is a very simple business. Hence, under the old system, when practically only the Adjutant and Sergeant Major ever imparted drill instruction, hundreds of officers never realised how all-important was the 'smartness,' *i.e.* 'concentration,' on which the latter so strenuously insisted. This accounts for the revulsion against 'steady drill' in the early seventies, and again since the recent War. I shared the feeling for a time in common with others, and though, thanks to my constant intercourse with the German Army, I soon grew out of it, I could not justify my position to my own entire satisfaction (still less to that of my friends) until I actually had to command Volunteers; then the explanation soon became apparent.

Of the willingness of the Volunteer there can be no question; if he did not want to be drilled he would not come to parade. For a few minutes his steadiness is all that can be desired; but presently the untrained mind begins to wander, the men's eyes stray away, and one feels oneself fighting an indefinable cloud of suggestion. Soon the men get confused, they no longer know their right hands from their left, and once that stage is reached all possible instructional drill is over for the day.

None but the initiated could believe the state of downright catalepsy that under such circumstances seizes the men. They move with glazed eyes as in a trance, and a sudden change of voice, or an unexpected word of command, will make half a dozen drop their rifles like startled housemaids. Sometimes the would-be instructor succumbs first, then it is the battalion that drills the Commander, not the other way about.

Approaching a point where the men are all expecting a certain order, the impulse to give it becomes irresistible, and the word is given, though the man in command may know that it is not the one he intended to use.

This explains the paralysing influence that the drill-ground, improperly understood, exercises over long-service Armies. All originality and initiative is lost because the average Commander, once in front of his men, feels it easier to do what they expect, rather than what he really intended doing. But when the familiar landmarks of the barrack square are left behind, neither knowing what to expect of the other, both are equally at sea. I have seen this happen hundreds of times in my experience, and it is curious to notice how much oftener the clever versatile thinker fails with his men than does he who is duller and more commonplace. There was one most able writer whose opinions on the Napoleonic campaigns were received with reverence all over Europe, but who never by any chance gave the right word of command. As a rule that did not matter, for the men liked him, and whatever he said they did the right thing. Once, however, on an inspection of the whole of the Aldershot Division in the Long Valley, there had been a rift within the lute of their harmony. The men resented some action or censure of his. His two companies were drawn up in front of the long column for marching past when he took his place. Without looking round, as he set his horse in motion, he gave his usual word of command (wrong, of course) which they, this time, immediately obeyed, not being minded to help him out. Slowly he rode towards the saluting base, rapt doubtless in sublime strategic conceptions, until a Staff Officer galloping up rudely recalled him to his position by asking him 'Where his men were going to?' Looking round he saw them gaily marching away over the hills in the direction of their dinners.

Similar incidents crowd upon me, but as they refer to more recent times and the heroes of them are still living, it is better to maintain a discreet reserve.

The above will serve to explain why the most practical soldiers in all countries still insist on the 'March Past' as

the best practicable Peace-time method of judging (where time is limited) the relative merit of bodies of troops. It is not the external pomp and vanity, or 'eyewash' as the men call it, that they form their opinion by, but the impression conveyed to their trained, *i.e.* attuned, faculties by the concentrated will-power from the marching mass which these faculties register. But the Inspecting Officer must have at least the makings of a leader in him or the impression will pass him by unperceived.

It is curious to notice, in this connection, how often popular judgment, and in particular the quick intuition of women, is more accurate than that of the professional critic, who, absorbed in looking for trivial details, fails to appreciate the collective impression of the whole. I have often heard it said that you could judge the relative quality of troops best at night by the sound of their feet on the road. That, however, is an act of reasoning, involving a knowledge of what the troops have been through beforehand. But I am inclined to believe that a trained officer, losing his sight subsequently, would be a better and more reliable judge than most others in full possession of their faculties.

This digression on 'concentration' enables us to approach another aspect of the question of 'duty' which could not be appreciated without it.

The evidence I have adduced will, I think, make it clear that bodies of men engaged in collective operations do generate a psychic force which can be felt though it cannot be measured; and this force must be in proportion to the power of concentration in the individual.

Given this force in sufficient intensity, then acts of heroism become possible which without it would be incomprehensible. Ultimately the motive which compels them is 'fear'—either of what one's comrades will say or think, or fear of actual physical punishment, a firing party, or the 'cat,' as in the old days. I submit that the nobler fear working through generations of inheritance evolves the concept of 'duty,' the baser one that of 'discipline' pure and simple. But in practice the two are so interwoven that neither appears,

except in extreme cases such as 'Chinese Gordon' for instance, as entirely apart and distinct from the other.

The 'discipline of the stick,' or of fear, has practically vanished from all armies, and entirely from civil life. That of 'What will they say in England?' alone remains; and I question whether our 'commercial captains,' as they have been called, are not throwing away their best and most easily realisable asset by the persistent neglect with which they treat this factor.

Intentionally I am keeping this on the lowest level—the level which regards morality merely as the experiences of civilisation crystallised into precepts. The higher, more commonly termed the religious side, I prefer to keep within my own conscience. I only ask, as one who has seen a good deal both of Military and civilian labour, whether we derive a tithe of the wealth-producing power our working classes are capable of evolving by our adherence to the methods of the Utilitarian school? Would it not pay our commercial classes better to turn out from their educational establishments men not merely with a smattering of elementary scientific knowledge, but with that developed will-power (a power of 'willing' in unison) which alone renders such knowledge fruitful of results?

We have the example of the Bengali Baboo on the one hand, of the Germans on the other—which would be the wiser choice?

CHAPTER VI

DOES MILITARY EXPENDITURE PAY?

In the preceding chapter I have endeavoured to show that in the abstract there is a strong presumption for the view that expenditure on military preparations (these preparations being confined within reasonable limits and conducted in accordance with established principles) constitutes a remunerative investment of the National funds.

In this and the following chapters I propose to show by a concrete instance that the returns from such investment are calculable within such reasonable limits of accuracy that no capitalist would hesitate to risk his money on the security offered if the matter were one which private individuals could directly undertake.

For this purpose I select the case of Prussia, as the one freest from complications and confined within the narrowest limits of time.

A century ago that country was brought down to an almost unprecedented degree of misfortune; her land, of itself the poorest in Western Europe, had been reduced by the passage of Armies and the exactions of the French to an almost hopeless condition; her trade was practically destroyed, and her national credit was literally non-existent. The shrinkage in her population is known to have been immense, though it has never been accurately determined; only the stimulus of National Defence remained as an available asset.

Whatever else suffered, the Army, firmly established on the Short Service principle, could not wait. Clothing, arms, and equipment for the men, remounts and forage for the Cavalry, fortifications and barracks, etc., all created a demand for labour; and since there literally were no incomes

to be taxed, the funds to pay for all these things had to be raised by National and local customs duties, both on out-going and in-coming foods, and manufactured materials of all descriptions. Economy and retrenchment were indeed the order of the day, and both were unhesitatingly enforced. But the transparent need of National Defence and the principles of Universal Liability to Military Service prevented their being applied in the same short-sighted manner which has so often occurred in our own history. The absolute need of the situation evolved its own remedy.

The essence of the Universal Liability to Service system entails in theory, as its name implies, that all able-bodied men should pass through the ranks of the Army. But in practice the State can only afford to pay for a certain proportion annually. Now the higher the average of education in the recruits as they come up, the shorter the time they require to learn their new duties; hence, since it costs less to teach a boy at a day school than to keep him in the ranks, free and compulsory education followed as a natural corollary of the German military system. It was adopted even while the French were still in occupation of Prussian territories. Further, to give an additional stimulus to education, especially favourable terms were allowed to men who could produce satisfactory evidence of a sound general education, in the shape of a reduction of the term of Service from three years to one year only.

There is much to be said against this proceeding on purely military grounds, as may be seen from the innumerable debates on the subject of recent years in the French Chambers. Actually at the present moment it is exercising most disastrous effects on the discipline of the Prussian Army itself; for the degree of education required postulates some relatively considerable amount of private means in the parents of the candidates. Hence it opens the door to bribery and corruption on the part of unscrupulous non-commissioned officers, a point I propose to recur to later. But at the time of its inception, and for many years afterwards, the result of the 'one year' system was electrical in stimulating the intellectual exertions of all classes.

The training of the young recruits could no longer be left in the hands of the non-commissioned officers, partly because under the Short Service system the old type very rapidly disappeared; chiefly it was because, with this 'intelligent' material in the ranks, 'intelligent' tuition had to take the place of the older, more rough-and-ready drill methods.

It was many years indeed, as the military newspapers, and even the comic papers of the period immediately following the War give evidence, before the full effect of their presence was felt. At first the reaction was so great that military training was by no means the ordeal it has since become, but from the first, as pointed out in Chapter I., it became evident that when such men as the young Graf von Bismarck, shall we say, served their year in the ranks, it did not pay for Lieutenant Schmitt to show a marked incapacity for his duties in front of his men. German young men were not brought up on public school traditions altogether, and though something of the repugnance against 'Telling tales out of school' always does exist amongst every body of men united for the performance of a common duty, such things did get out, even in pre-Socialist days, and with very prejudicial effects on the prospects of the delinquents.

Thus from the first the officers were compelled to use their wits in order to survive; and since in the general poverty of the country there was absolutely no other outlet but the Army for the energies of the upper classes, Short Service at a blow wiped out that worst curse of every nation, an idle and effete aristocracy.

Slowness of promotion, and the absolute want of all but the sheer necessaries for military training, all retarded progress for many years; on the other hand, these drawbacks served to form the character, and to develop the gifts of the better men. The number of recruits to be dealt with annually had from the first compelled decentralisation; and as the Battalion Commanders grew older and less active they allowed more and more of their power to pass into the hands of their Captains, who in their turn found it expedient to encourage the initiative of their Subalterns. The Field Officers being

all too old for the active duties of the Staff, the command of a Company or Squadron was the last chance a man had of improving his position; hence the competition became very severe. Men were not long in recognising that when tested on the parade ground their reputation was absolutely at the mercy of their subordinates, who could always spoil the best march past to spite an unpopular Officer; therefore they soon learnt how to get the most out of their men without overworrying them. Tact, justice, and a quiet, equable temper they found paid the best; and in consequence, when in 1866 and 1870 the new Prussian Army took the field, the Regimental Officers were followed with a heroism and devotion by individuals which has seldom, if ever, been exceeded. With due regard to the state of civilisation of the nation from which it sprung, there probably never has been an Army in which a higher standard of good conduct has been attained with so little recourse to punishment, as that which followed King William I. across the French frontier in 1870.

Yet a further advantage accrued from the new system, the importance of which it is difficult to overrate, though its growth was so slow, and also so natural, that it escaped notice in the Army itself. I allude to the evolution of the deservedly celebrated Prussian 'General Staff.' It is customary to attribute its evolution entirely to the orders and regulations inspired by its founders, von Clausewitz and von Moltke; and in theory no exception can be taken to the guiding principles which these two very exceptional minds laid down. But, in practice, we in England who copied their ideas almost literally, have had abundant experience to prove that their literal meaning will not suffice. Closer inspection shows that it was the *spirit of the Army as a whole* which alone has given them the success they have obtained. You may issue orders and regulations with the best intentions, prescribing courses of study, and conditions for attainment, until the book of Army Orders becomes as voluminous as the contents of a well-stocked library, but without some sufficient incentive to exertion, the inertia of average human nature will triumph, and the orders will remain as so many dead letters.

So it had been in the Prussian Army before Jena, and so it remained in our own until very recent days indeed; and the reason was the same in both cases—over centralisation destroyed the mainsprings of human action. There being, with long-service men, very few recruits to teach and a great many people to do the teaching, what was everybody's business soon became nobody's business, and professional study, in so far as it persisted at all, became the pursuit of the 'military dilettante.'

It is almost heart-breaking to read the bitter complaints of individuals against the evils which they saw around them, both in pre-Jena Prussian publications, and in our own contemporary military literature. Sad it is to note the hopeless waste of energy which both display. But in either case the reason is the same. There are always in every Army many men who read for love of their special subject, but they select only such works as appeal to their own idiosyncrasies, and never get out of their particular groove, because they are not compelled to test their theories against the common-sense criticism of everyday life.

The Prussian officer, standing in front of his intelligent, or relatively intelligent men, found himself compelled to absolutely master his subject, if he was to keep his position as Leader. Thus his reading assumed a very different character to that which obtained in other Armies. He was forced to work down to bedrock facts, and to satisfy himself that he understood them. This accounts for the thoroughness which stamps the majority of the works written by Prussian officers. Though their theories, in the absence of War, could not always be put to the last test of experience, and many readjustments became, and doubtless will again become, necessary under fire, in the main a general consensus as to first principles was arrived at. This ensured the efficient co-operation of all arms, and thus enormously contributed to their victories in the field.

In this day-to-day grapple with realities (the nearest approach to a business training which Armies in Peace can provide) the young Officer with brains had ample opportunities to distinguish himself as a practical master of his

work; and when it came to the selection of men for Staff employment, the older Officers, in proportion as they themselves had been trained in the same school, could choose the best of their juniors without having to call in the aid of the competitive examiner. They could also be held responsible for their choice, and if their nominees failed them, they could not plead that, under the everyday circumstances of regimental existence, it was impossible to say how men might turn out.

Doubtless even this system did not work altogether without friction—no human system ever does. Instances of favouritism, of personal spite, and so forth, could easily be proved against it; but in the main it eliminated probably four-fifths of the usual causes of discontent and inefficiency, until after fifty-five years of its continuous action, the Prussian Army possessed the most competent Staff that had ever yet been known in time of War, to direct its operations.

It was this high average of attainments in their Staff which gave to the devotion of the men to their immediate Commanders their ultimate reward. Of the true genius for War as we find it in men like Cromwell, Marlborough, Frederick the Great, Napoleon, and Wellington, the Campaigns of 1866 and 1870 reveal no trace. Indeed, such 'sporadic' genius might easily have proved an evil in such proceedings. It was just such a triumph of organised mediocrity as was shown in these two campaigns that the great Prussian organisers, Scharnhorst, Clausewitz, and Moltke, had consistently kept in view throughout the many years of toil and labour through which their collective efforts had endured. This is the essential point to remember. And now let us see the financial results which were thus secured.

Primarily an indemnity in gold of £200,000,000 and the gain of two rich provinces, Alsace and Lorraine, with 1,590,000 million inhabitants worth to them at least as much again, accrued to Germany. But this was a mere nothing compared with the conditions favourable for the growth of national wealth which their victories created; for during the whole fifty-five years of preparation the Army had been accumulating

potential wealth-producing power. At a time when distress and poverty were at their very worst, when national credit was simply *nil*, it had found steady employment for hundreds of thousands, not only in the Army itself, but in all those branches of agriculture and industry concerned in the maintenance of its efficiency. Certainly the money for all this had had to come out of the taxpayers' pocket somewhere, but by concentrating its influence on the education and training of the youth of the nation, it had provided for the latter a physical and mental development entirely unobtainable except by such organised effort.

If, roughly, 250,000 young men were compulsorily taken from reproductive occupations (a fact which in the absence at the time of both capital and credit it would be difficult to establish), they received in return three years of such improved conditions of existence (for the hygienic surroundings of the soldier are always much in advance of the average of those classes from which he is drawn), that they became physically not merely *more capable of hard work*, but better able to resist *sickness and disease*. They were also better fitted to become the fathers of *healthy children*. But above all things they were taught the meaning of the word 'Duty,' and became habituated to the *concentration of their efforts* on the execution of whatever task they had in hand, that being the principal end and object of the whole of their drill-ground training.[1]

Thus the ground having for years been prepared for the growth of the modern industrial system, when at length, after two short campaigns, security of title was secured on both the most exposed frontiers, capital flowed in from all quarters to exploit the new conditions.

The rush of prosperity which followed exceeded anything that the present generation in England has ever seen. Americans admit that it has hardly been equalled even in their own country. Beginning in the coal-fields in the Prussian Rhine Provinces (where indeed tentative developments had for some time been in progress), it spread all up the river and over the watershed of the Weser to Cassel and

[1] See Chapter III., on 'Concentration.'

beyond. Not even the mountains of the Black Forest could stay its progress. Important centres of industry developed at places apparently so little favoured by Nature as Nuremberg, Cannstadt, and Esslingen. After the campaign of Bohemia a similar outburst of energy had taken place in Silesia and Saxony, and the whole valley of the Elbe responded; while Berlin, the meeting-place of the two streams, became the focus of a boom in land values exceeded only in magnitude by the growth of Chicago. There was, of course, much wild speculation, and fortunes changed hands with disconcerting rapidity. This was only to be expected when people who had formerly dealt only in hundreds began to think in millions. Practically the whole banking system of the country had to be recast, and the process has hardly been completed. But in spite of the many cruel lessons the German commercial world has had, and will yet have to undergo, the general tendency has been strongly and consistently upward, and there is no gainsaying the fact that land which in my own life-time could have been freely bought at £10 an acre, now would be cheap at the same price per square yard.

I have found it impossible, with the time and means at my command, to attempt any estimate of what this rise in land values has really amounted to, but one or two points which influence such calculations deserve attention, as they are quite outside the experience of our own land valuers.

The most important trade centres of necessity always occupy the points where many lines of communication, roads, railways, or canals, converge. Hence on the exposed frontiers of a weaker country these points have always required fortification. Now whereas in the case of unfortified centres, land increases steadily in value as you approach the town itself, in fortified ones it suddenly falls to nothing immediately under the guns of the ramparts; and the greater the range of the guns the wider the zone of depreciation. People who have once seen the consequences of the order to place a fortress in a state of defence, are naturally somewhat chary of investing money in its vicinity. Since 1815, Cologne, Coblence, and Mayence, as typical cases, had all been converted into entrenched camps, *i.e.* the towns within the actual ramparts

of the old works had been surrounded by a chain of detached forts on a radius from the centre of some 4,000 yards; and the range of the guns by which these were defended had grown from about 1,500 to 5,000 yards. Thus, for 9,000 yards around there was not a house, village, or hollow into which shells might not fall, and since the area of a circle of 9,000 yards, say 5 miles radius, is roughly 75 square miles or 48,000 acres, we have for the three fortresses named a standing depreciation entailed on the land affecting 225 square miles, or 144,000 acres; together with a permanent tax on the health and wealth of the people due to compulsory overcrowding within its walls. We talk of want of air and light in the slums of London and our great manufacturing towns, but our evils are as nothing to the awful death-traps the slums of these fortified cities 50 years ago became in unhealthy seasons. Again, we have no authentic figures to guide us, but a death-rate up to fifty per thousand was by no means uncommon.

Once however the dread of invasion was removed, public confidence again revived; and though new works of defence at a far greater distance from the city were in most cases constructed by excess of military precaution, the land values went up until they reached a normal level proportionate to the attraction exercised over them by the magnitude of the mass they surrounded. Immediately under the guns of the old ramparts I have known land rise from £10 an acre to £5,000; and, taking the appreciation of the whole district within the zone of defence, I am confident that the 'unearned' increment has been seventyfold, or roughly twenty millions of fresh security have been called into being in these three fortresses alone.

The fate of the country, had defeat been its portion, is, of course, impossible to imagine with any degree of accuracy. The new forts would have been built, and the old limits on the expansion of the central nucleus thereby removed, if only as a consequence of the increased range of modern ordnance; but this would not have restored public confidence, and though railways and steam navigation would have done much to develop trade, I doubt whether capitalists

would have shown any great keenness to found the great industries and construct the huge factories which now disfigure so much of the landscape.

The fairest way to estimate the net gain to the country would be to take curves showing the progress of the earning powers of the principal railways and waterways of the whole Empire during the thirty years preceding the period of the Franco-German War and, continuing them onward at the annual rate of increase previous to that date, compare them with the actual earnings of the same trunk lines at the present time.

But again, it must be insisted on that the great industries, from whose competition we have now to suffer, require something more than capital and brains to keep them going; nor would cheap labour alone have sufficed. Modern industries require something more than mere 'hands' as pointed out in the previous chapter, and this was precisely what the Army was able to supply.

There is a point in the development of modern industrialism which has hitherto not attracted the attention of men of business. It unquestionably deserves that attention; and since the action is more clearly seen in the case of Germany than in any other country I have studied, I propose to deal with it at considerable length.

In the early days of our Manchester school the governing idea of our 'Captains' of Industry was that 'machinery' displaced 'brains' in the workers, and only 'hands' were required. Provided they could impose their own conditions on their unfortunate victims, they cared nothing for their health or happiness. In the commencement of our industries, before labour had learnt to combine, the manufacturers were able to enforce their own terms, with the disastrous consequences to future generations from which we are still suffering. This was because, for the most part, they themselves had sprung directly from the people, and in spite of the unrelenting harshness with which they enforced 'business principles,' they yet possessed an innate knowledge of the men with whom they had to deal, and the fact of their own success gave them a certain prestige in the eyes of the canny northern men who worship such success. I can still recall certain great ironmasters and

contractors in the North, who had fought their way to the front, not merely by brains and ability, both of which they undoubtedly possessed, but mainly thanks to the weight of their fists and the promptitude with which they used them in cases of incipient mutiny.

From these men one could not withhold respect; but when they were succeeded by their sons who had been given a University education (about the worst in the world to fit a man to be a ruler of men), the 'hands' resented the supercilious attitude of the new masters towards them. Then the era of strikes, at first sporadic, soon became epidemic, at a cost to the country it is impossible to estimate.

In Germany, however, the owners of mills and factories sprang from a different class to the University-trained owners above mentioned. They had, for the most part, learnt their business in our English mills. If left to their own devices they would have copied the worst of our practice with regard to the treatment of their hands, with the added touch of brutality which they have superimposed upon our colonial methods; for the Germans, outside of their 'Uradel,' are constitutionally far more inclined to tyrannise over subordinates than are our own people. This is well shown by the contrast between the methods of their non-commissioned officers and ship captains and those of our own.

Against these men, the average German 'hand' without military training would have been as a sheep to the wolves. From this fate their three years' service saved them. They were free men who had worn the King's coat (no disgrace in that country), and not only was outside public opinion on their side—for they could always go to their old Officers for advice and support—but in the works themselves the older and most trusted men had also been through the Service, and these again acted as a buffer between an overbearing superior and the lowest, and therefore most helpless, class of the workpeople.

Hence, throughout the industrial development of Germany, there has been a marked absence of that extreme tension between employers and employed which has acted so prejudicially in our own case. There have been strikes, many and

extensive, as there will always be as long as human nature remains unregenerate; but, with due regard to the relative standpoints of civilisation in the two countries in the first half of the nineteenth century, I think an impartial student of the evidence must agree with me that, on the whole, German commercial development has been far less hampered by these interruptions of continuity than have been our own employers during the same period of time.

This brings in a second cause of gain, to which the first is but introductory. Relative absence of strikes presupposes a relatively higher degree of contentment, and it is this higher average of contentment which ultimately conditions the maximum output of work of uniformly good quality. For, almost in proportion as men are stronger and more intelligent workmen, a discontented man can create more invisible, *i.e.* undetectable friction, than can a stupid one. And this friction is the first thing a malcontent invariably sets himself to create. He is much too clever to incur dismissal by negligence which can be traced to its source; he finds it easier and safer to combine with his mates to lower the standard of thoroughness; and he incites them to combine with him to embarrass the owners in critical moments. The contented man, bringing with him from the ranks to the workshop sound physical health and strength (which, after all, are the true mainsprings of contentment), and in the habit of giving his whole attention to his task, not questioning established authority, has a constitutional contempt for the would-be shirker, whom he has learnt to despise in the ranks. He only needs sympathetic handling to put forth his utmost; and this utmost, thanks to his physical fitness and habit of concentration, is materially greater than that of his untrained and undisciplined competitor, who very shortly goes to the wall in the struggle for survival, and finds his place taken by a fresh recruit to the labour market recently set free from the ranks.

To sum up, therefore, the total direct gain to industry resulting from Universal Service on the Prussian pattern, we have the following series of cumulative factors:

The discipline and self-respect acquired in the Army ensure the workman better treatment; this better treatment

gives higher contentment, and this higher contentment, together with greater physical strength and concentration arising from his training, makes him turn out more and better work in the same time. Finally, as before noted, the superior hygienic conditions under which he has spent three years of his early life render him less liable to disease, and generally may be considered to give him an increased expectation of life of at least five years. It follows, then, that if he loses three years at one end he gains five at the other, and the nation is the richer by the whole of the 'two-annual' contingents which at any given date would, without such training, have been in their graves.

How to assess the money value of all these factors is indeed a difficult problem, but a minimum approximation is at least possible on these lines.

Forty years ago, when the conditions of military service in our country were at their worst, when by twelve years of barrack-square routine the soldier had had all initiative and sense of free will very completely crushed out of him, Sir Joseph Whitworth gave it as his opinion that the trained soldier, owing to his habits of obedience and thoroughness, was worth 1*s.* 6*d.* a week higher wages than a civilian of the same class. Since the average proportion of wages to the value of the finished article is about one-third, that means that the ex-soldier would add 4*s.* 6*d.* a week more to the selling price of the raw material worked upon; and this must be considered a minimum value, owing to the enormous improvement in the methods of training introduced and the results attained in all modern Armies.

Four-and-sixpence a week is, in round figures, 20*l.* a year, and, the average number of adults who have passed through the ranks alive at any period during the past ninety years being about 6 millions, the increment to the wealth-producing power of the nation due to military training would be approximately 20*l.* × 90 × 6,000,000 had the conditions throughout remained uniform, *i.e.* 10,100,000,000*l.* Actually, they have been uniform over Germany for only thirty years; only in Prussia have they remained constant throughout the whole period. Hence we must deduct at least one-third from

the above; but even after that reduction the total, viz. 7,200 millions sterling, makes a sufficiently startling return on the capital sunk in military expenditure, which has amounted to about 1,300 millions during the same period.

Had there been no military training, not only would there have been no increment in earning power, but there would have been only $5\frac{1}{2}$ million men, instead of 6 million, earning the lower rate of wages, so that the above figure of 7,200 million is a minimum. This is on the assumption that the effect of ordinary civil education would have been the same in both cases—a point which may be questioned when we consider the stimulus to intellectual exertion the desire to escape from the ranks has supplied; and, further, it is also assumed that the rate of increase of the population would have remained the same as it actually has done, which, again, is a point which is open to dispute.

Add to this the increment in value of land due to security of tenure and the development of railway communications throughout the country, which would not have been remunerative but for the increase of trade and well-being generally which this increase of labour power, due to military training, has evolved, and the solution of the problem why the credit of the whole of Germany has advanced from *nil* in 1815 (as I have above pointed out) to a point at which the Empire can practically borrow on terms as good as we can ourselves command—and, what is most significant, her trade is pushing ours in every corner of the globe—is sufficiently apparent.

Moreover, this has been accomplished against what we in this country have been taught to regard as the most detrimental method of taxation which can be devised, viz. local and general protection. Hence the Free-traders, and those who oppose military service as a hindrance to national industry, are in a troublesome dilemma; for, if Protection is the curse they represent it to be, how extraordinarily great must be the advantages of the German military system, which, in spite of the drag of indirect taxation, has raised that nation to its present industrial position. Or, if it is military service is the curse, how great are the virtues of Protection.

It seems to me that the present confusion of thought on

both these heads is due primarily to our commercial habit of viewing the whole subject of profit in industry with altogether too narrow lenses. Our test is simply, 'Will such and such an investment return a fair rate of interest to the investors?' We disregard altogether the broader aspect, of whether it tends to develop the country as a whole; and this view is fostered by our habit of saddling taxation mainly on one class of the community only. Thus, taking the case of a line of railway required to develop the resources of a backward portion of the country, we make estimates of the probable traffic and its reasonable expansion, and if on that estimate there seems no hope of a 4 per cent. dividend, the line remains unmade. Yet we leave out of sight the enormous increase of facilities the line affords to all residents, the savings in horse transport, etc., which would result from its construction, and the consequent appreciation of the value of the country through which it passes, all of which could be brought to account somewhere, if only people had the patience to trace it. The Chatham and Dover Railway is a case in point. Its Ordinary stock has never paid a dividend, and probably never will, but who can deny the enormous profit which has resulted to the districts through which it passes?[1] Other districts traversed by paying lines have done relatively better, no doubt, but eliminate the line altogether from the map and try and picture the lot of the country people without it.

Against this take the case of a business which by the strictest applications of the *laisser faire* principles has been made a dividend-paying concern, one in which wages have been cut to the lowest, and the district covered by squalid townships of the type common in the West Riding forty years ago; then trace out the consequences to the Empire of the degradation of physique from which such a district is still suffering. Surely the net gain to the nation has been greater from the non-dividend-paying investment than from the paying one.

[1] See Mulhall's *Industries and Wealth of Nations*, p. 46. 'In Germany it is computed that each mile of railway causes a yearly saving of £6,300 to the public, equal to an average dividend of 32 per cent. on cost of construction.'

CHAPTER VII

SOCIALISM IN GERMANY

If, as I have shown in the previous pages, universal liability to military service has enriched the German Empire within the term of a few years to a degree I believe to be unparalleled in history, if it has raised the standard of comfort and developed the average intelligence and physique of the whole race to a pitch which enables them to challenge comparison with any, even the most favoured, people in existence, the question naturally arises, 'Why has Socialism, primarily the manifestation of the disease of discontent, made such exceptional progress precisely during the period of the most pronounced military activity?'

The answer is not far to seek. The growth of national Wealth is not necessarily a symptom of national contentment. Indeed, it would seem to be a necessary consequence of the law of polarity obtaining throughout the world, that discontent is inseparably connected with progress; and that whilst no progress would be possible without discontent, discontent would not exist without progress.

National wealth represents the sum of all the infinitesimal individual forces at work to secure the alleviation or satisfaction of their personal desires. The higher the average of intellect, physique, and general culture, the greater the aims to which individuals aspire, and the keener the resulting struggle for survival. Where men, if not exactly satisfied with their environment, are at least too apathetic to fight against its influence, as in China and India, there is no Socialism, only a tacit acceptance of things as they are and a passive endurance of resulting sufferings. But in every nation of the West the leaven of discontent is always working,

and, in so far as conditions previously acquired do not modify its action by affording outlets for exceptional effort in new colonies, where men have room to move without elbowing their neighbours, it is the part of the statesman so to modify the conditions of the struggle that, whilst the germ of discontent is not stamped down, combination of the discontented elements is so far guarded against that they can at no time seriously threaten the stability of the State. How far German statesmen have succeeded in solving this problem is the question we have now to determine.

Prior to the victories of 1870 Socialism in Prussia was practically non-existent, though its germs were freely scattered in South Germany and France, races having only one condition in common, viz. the existence of a Conscript Army in which the system of 'paid substitutes' was in force. This system had arisen in France during the years from 1792 to 1798, where the lawgivers had ultimately decided in its favour as the best practical solution of the difficulties with which they were at the moment confronted. Universal Service, the original conception of the Revolution, had proved altogether too expensive; it struck at the roots of all commercialism, taking away, without distinction of their responsibilities, the educated and intelligent, who were required to conduct the business of the country and to supervise the labouring classes, whose efforts were of no avail without intelligent supervision. An agricultural labourer made just as good a soldier as the son of a man directing great commercial undertakings. Some thought the former to be even better. It therefore seemed to be a sound exchange for the State to allow the money of the latter to buy the physical strength of the former, who by the mere fact that he was ready for a consideration to accept the risks of a soldier's calling was more likely to do good service than the man ready to pay heavily for exemption. Presently, as trained men became available, made soldiers, who had completed their term of service and were still physically fit, were allowed to act as substitutes, and the gain to the State appeared a double one. There could be no doubt of the superiority of the trained fighting man, who still wished to serve, over the untrained and reluctant conscript, whose only

desire was to escape or evade his national duty. This system then became general all over Europe, except in Prussia. Sadowa, Metz, and Sedan were its consequences; for in proportion as the term of service was longer and the numbers of men in the units already thoroughly drilled became greater, the demands on the intelligence of the officers were diminished, and they could pass on more and more of their proper work to the shoulders of their subordinates. These were those 'splendid Non-Commissioned Officers' who in every Army (except, again, Prussia) have always been considered by professional opinion as 'the backbone of the Army,' and always for the same reason, because their excellence screened the incompetence of the junior officers.

In our own case the longer term of service never developed its full capacity for evil; our frequent little Wars, our service in India and the Colonies, in a measure prevented stagnation. Even in France, Algerian experience and the constant succession of campaigns—the expedition to Rome in 1848, the Crimea, and the Austro-French campaign of 1859—kept unbroken the tradition of regimental efficiency, and the old long-service soldiers of France well deserved the splendid eulogy contributed to their honour by von Moltke in the Prussian Official History of the campaign of 1870: 'It was these men chiefly who, on the battlefields of France, sought to redeem with their life blood those errors for which they were in no wise responsible.'

Even in Austria, with active service in 1848, 1849, 1859, the evils of the system fell short of its full possibilities. But in the South German States, whose troops never saw a shot fired in serious anger from 1814 until 1866, this absence of any incentive for exertion on the part of the junior officers worked out its full consequences, and the efficiency of their armies sank to a very low level. With an ample staff of old soldiers to train the recruits, power slipped more and more into the hands of the non-commissioned officers, who in time settled down, as men always will, into the ruts of routine. After a time, instead of exerting themselves to teach the young soldiers the minor tactical rules of the game, as in Armies in countries where War is chronic they are compelled by the

instinct of self-preservation to do, they found it more convenient to show them how to keep out of trouble, and so to lessen the internal resistance of the machine. They thus effected economies in time and energy which could be most comfortably dissipated in the 'Kneipe,' or in female society.

The old chorus men used to sing to the music of the 'Alte Dessauer' march (originally, I am informed, a hymn tune brought back from Italy by the Prussians in 1701) is sufficiently characteristic of the spirit of pre-seventy times to excuse the transcription here:

So leben wir, so leben wir, so leben wir alle da,
So leben wir alle da bei dem Sauf Compagnie
Des Morgens bei dem Brantwein, des Mittags bei dem Bier,
Des Abends bei der Mädle in die Nacht Quartier.

Now wine, beer, and spirits were phenomenally cheap; the French occupation and certain well-meant but most futile legal enactments against early marriages having caused female morality to be at an exceedingly low ebb (percentage of illegitimate children in Munich, 50 per cent., against 9·7 per cent. in Edinburgh and 4 per cent. in London [1]), it may be imagined what a cheery time the smart, well set-up, re-engaged soldier was able to provide for himself, at the expense of anxious matrons, and particularly of housekeepers. Leech only could have done justice to their troubles; but Hackländer, in his 'Soldatenleben in Frieden,' a little book containing inimitable caricature sketches, makes a very good second to the immortal John.

These conditions, however, bring serious consequences for a nation in their train, for they inevitably set up an internal strain of class jealousy. The civilian had no chance in the competition for the women compared with the soldiers, nor could he always keep one even after he had married her. Under these circumstances it was precisely those whose sensitive nerves made them anxious to escape the rough conditions of a soldier's life, men constitutionally susceptible of extreme mental suffering, and consequently more capable of enduring hate and jealousy, on whom the burden of the situation fell. They had no possible means for attaining redress

[1] See von Gettingen, *Moral Statistics of Europe*, 1882.

of their grievances, even had these been of a nature for which redress is possible; they brooded on their troubles, and saturated themselves with the philosophy of pre-Revolutionary days: Rousseau and the 'Contrat Social,' for instance. To them soldiers were but idle drones, useless for purposes of production; creatures living on the hard-earned gains of the 'honest citizen,' a standing menace to the sanctity of the domestic hearth; in fact, all the old clap-trap denunciations from which our own peace-at-any-price fanatics have not yet succeeded in emancipating themselves; and in support of their allegations they could always find a sufficient number of crying examples. Then, since the literary 'afflatus' is generally a product of a small disturbance of the equilibrium which should exist between mind and body in the young—no healthy young human animal ever sought to relieve his feelings by pen and ink—the whole of the Press took the side of the civilian against the soldier, with the result that the two classes drifted almost as far apart as they had been in Prussia in pre-Jena times.

When, therefore, after 1866 and 1870 the Prussian law of Universal Service was imposed on all alike, the ground was fully prepared for an outburst of 'Anti-Militarism.' The leaders of the Socialist party (who had grown up not in Prussia, but in the South German States, including Saxony, and in the Free Towns, such as Hamburg and Frankfort-on-Main) were able to influence public feeling against the Army by accusations derived from their own experience in youth. These were true enough as far as they went, but were absolutely inapplicable to the changed conditions which the new law of Universal Service had called into existence.

At first their progress in Prussia proper was exceedingly slow, as a glance at the coloured electoral charts since 1870 will show. The nation was too proud and grateful for all the Army had accomplished in the service of its country to render willing ears to its slanderers; but presently, owing to the intensification of military training, which was the natural consequence of what all ranks of officers had seen and undergone in France, together with the numerical increase

in the Army—the result of the new laws of service of 1893—the equilibrium hitherto existing between the numbers of men born to command and those born to obey was disturbed, and new conditions have arisen which seem likely, if not checked—and it is not easy to suggest how they can be checked—most seriously to diminish the efficiency of the Imperial Army.

The immediate problem to be faced when hostilities ceased in 1871 was the absorption of the Forces of the Confederation by the Prussian Army and the creation of two Army Corps for Elsass-Lothringen. Other augmentations had also to be set on foot, into the details of which it is unnecessary to enter. These measures entailed an enormous drain on the existing *cadres* of officers (which, moreover, had suffered quite disproportionately to the men during the War itself),[1] and the fighting families, from which hitherto the commissioned ranks of the Army had been recruited, proved quite unequal to the strain. Hence recourse had to be made to the sons of the wealthier commercial classes, who until now had been remorselessly rejected by the officers[2] themselves; and the pages of the Army List soon showed a marked increase in the numbers of names without the prefix of 'von' before them. Experience has since justified the prejudice with which the older school of officers had always regarded this particular class. In England this exclusiveness has always been condemned, though in practice our best regiments have always done their best to imitate it. But in justice to the Prussian officer it must be remembered that the line of division between the classes was far more clearly drawn than in this country, as there was not, and still is not, anything like the gradual fusion between the upper middle classes and the aristocracy which exists in our own country. As it is (and it has been the same with us also), the men in the ranks are the quickest to detect and resent the difference between the two classes. I do not for one moment imply that I have not met men without the

[1] Approximately the death-rate amongst officers was three times as high as that of the men.

[2] In Germany no educational certificate gives a man a right to a commission—he must first be proposed to and accepted by the Officers of a regiment.

magic prefix to their names who were not equal in every respect to their higher-born comrades ; yet, taken in the mass, there can be no doubt that the men's prejudice against the commercial strain has proved by no means without justification. It was the existence of this prejudice alone which went far to break the bonds of mutual confidence that formerly had united the men with their officers.

Further, in order to bring the contingents of the Southern States to the level of the Prussian Service an enormous number of transfers had to be made, and these were not always carried out with either discrimination or tact. Quite junior Prussian officers were set over the heads of men who had distinguished themselves in the field in front of their men, while South Germans were moved away into most uncongenial surroundings, and thrown amongst men whose *patois* was almost a foreign language to them. Again, it must be remembered that the antagonism between North and South, and between the several minor States, was immeasurably stronger than any feeling of the kind with which we have had to deal within the last century. If in our own lifetime we can recall the intense jealousy and bitterness with which, for instance, the officers of the Royal Artillery resented being placed on terms of equal seniority with those of the Bengal, Bombay, and Madras Artilleries (though all alike essentially belonged to the same race, had sprung from the same class, and had equally distinguished themselves before the enemy), we can imagine how the Hanoverians and Hessians, etc., resented their supersession by the Prussians. The latter were not only entirely unsympathetic to the rest of Germany, but only a few years before had triumphed over the Hanoverians, etc., in the Field, and had exploited their advantage without much consideration for the feelings of the vanquished.

Actually I have watched these conflicting interests at work in several German Regiments. Alternately the confidant of either side, and knowing the extreme bitterness of the feelings aroused, I can only express my unbounded admiration for the larger patriotism which all of them displayed in sinking so far as was possible all personal differences, and

working shoulder to shoulder for the good of their common Army. I doubt whether under similar provocation our own people would have borne the strain so well.

To all this must be added the sudden increase in the development of personal ambition which was the necessary sequence of the War. Previously promotion had been so phenomenally slow that only the rarest characters attempted to struggle against the prevailing monotony. The average man was quite content to do his duty as he found it. He wasted no time in idle day-dreams of future glory. Promotion was so terribly lengthy that Captains fifty years of age were by no means uncommon. Hence the men had the advantage of a patient and fatherly treatment, which, if it failed to secure the extreme smartness under arms of the present day, nevertheless ensured a higher guarantee of cohesion under fire by the bond of affectionate union which it created amongst all ranks. After the War all these conditions changed: young Captains and Lieutenants with a career still before them, and taught to realise the intensity of the strain on the battlefield, strove ever harder, one with the other, to exact more and more from their men; and though the attempt, when overdone, generally recoiled on the doer's own head, as it always must when the officer is judged by experienced leaders in front of his own command, these failures gave rise to sufficient incidents of attempted slave-driving to lend colour to the dissatisfaction which was beginning to be felt. No better example of the extreme difficulty of hitting the happy mean in this question of zeal or apathy can well be imagined than what now occurred. If in the days before the War Officers had taken too little interest in their duty, they now took a great deal too much. Owing to the complete confusion into which all tactical teaching had been thrown by these first large-scale experiments with the breechloader, altogether too much latitude was conceded, especially to the Company Commanders, who, not being all born leaders, tried the most outrageous experiments[1] with their men, and thus incurred the contempt of the common-

[1] See Prince Hohenlohe, *Letters on Infantry*. For these experiments a slang term was invented, viz: 'Türken.'

sense majority—not a good basis for ready and willing obedience.

Here, and indeed everywhere where friction arose, the admirable non-commissioned officer, evolved from the generation that had fought and won on the fields of Bohemia and of France, acted as springs to temper such shocks. But as time went on, and war medals became conspicuous chiefly by their relative absence, a fresh generation was selected for their performances on the barrack-square, not for their fidelity under fire. When these young non-commissioned officers took the places of their war tried predecessors, the German authorities found themselves face to face with what is always the greatest problem in all compulsory military organisations, varying only with the distribution of the population between agricultural and industrial employments.

No State can afford to offer monetary or social advantages adequate enough to induce men to re-engage for non-commissioned officer's rank during times of prolonged peace and prosperity. Well-educated men with anything approaching the gift of command appreciate the prospective value of their services far too highly; hence only the more stupid and less courageous remain.

When, therefore, with more money in circulation than had ever been known before, the possibility of adding largely to their official salaries by organised blackmailing of the 'one-year volunteers' and reservists began to attract the baser type of non-commissioned officer, the honest, if duller, souls, who had formerly sufficed for the easier routine which prevailed before the War, found it impossible to survive.[1] If they stayed, they were in an uncongenial atmosphere, and found themselves exposed to constant intrigue, which they were too slow-witted to encounter; but more often they were outclassed in their officers' esteem by the superior smartness of their opponents, who knew that it paid them to excel as smart drillmasters. Unfortunately, the younger class of company officer no longer possessed the experience of human nature which had enabled their predecessors to see beneath the veneer of soldierly smartness which the newcomers so well knew how to affect.

[1] See *Jena oder Sedan*, referred to below.

I first began to notice the change in 1887; and in 1892–3, when resident for a year in Prussia, the growing evil was most prominently brought to my notice, which since then has made most rapid strides. I must premise that in all my many visits to Germany, extending over a period of more than thirty years, though I have spent days and weeks in the closest observation of German drill-grounds and barrack life, with opportunities which certainly would never have been accorded to any civilian, I have never once seen an officer or non-commissioned officer either strike or threaten a soldier. Moreover, there has not been amongst my numerous friends, either in the Infantry, Cavalry, or Artillery, a single one who was not as closely concerned as any British officer would be, to prevent anything of the kind from happening. They have often discussed with me the difficulty they have experienced in preventing such occurrences; and I have repeatedly known men dismissed the Service for merely threatening a private soldier. They have frankly admitted that cases of bullying did occur, and have given me a reason, which the advocates of compulsory service in this country would do well to bear in mind, why such things were inevitable.

In the first place, it must be remembered that it has never been the custom on land in England to enforce obedience to any kind of authority with blows, though on tramp merchant vessels it still prevails. But all over Germany until quite recent times the practice has been common. As Prince Hohenlohe in his 'Letters on Infantry' points out, even in the middle of the last century parents still continued to strike their grown-up children for disobedience; while in country districts, to box the ears of a lout of a peasant was considered quite a recognised means of attracting his attention. Further, our men all bring good will to their duties, at least in theory, and if in practice they find they have made a mistake, they can find no one, or very few, to show them how to utilise their discontent for political purposes. But Universal Service brings many most unwilling fish into the net, and amongst them are men with the groundwork of a lawyer's training and many friends amongst the Socialist ranks. These men take a positive pleasure in passive resist-

ance to authority. They will exhaust their ingenuity in trying to goad an unpopular non-commissioned officer into some breach of the letter of the Regulations. If they succeed, then, at no more cost than a cuff on the head, they win cheap notoriety in all the Socialist papers. The 'outrage' is telegraphed over to England by men who have never troubled to acquaint themselves with the true facts of the case, and we are treated to fresh and startling headlines of the 'Brutality in the German Army' style in all our halfpenny papers, and sometimes even in better ones.

Of late years there seems to have been a perfect saturnalia of such offences, and their causation deserves more thorough investigation than it has as yet received.

As I have already shown, their number was bound to increase as, on the one hand, the non-commissioned officers deteriorated, on the other the officers lost the close personal touch with the men that had formerly prevailed. If these had been the only causes in operation the increase would have been uniform, not sudden; but the only new factor I can trace as introduced into the problem in the meanwhile has been the reduction of the term of service with the Infantry from three to two years with the colours only. This change was not made on the grounds ostensibly put forward, viz. the need of preparing greater numbers for the ranks, for all military opinion was, indeed, opposed to this *rage des nombres*, as the French have christened it; and the whole Army was with Caprivi when, as War Minister, in the Reichstag he reminded his hearers, only two years before the change took place in 1893, that the difficulty was not so much to get the men as to find the Generals who could handle them.

The idea was primarily due to the political necessity of finding some means of counteracting the growth of Socialism by distributing the load of military service more uniformly, and subjecting every able-bodied man, as far as possible, to that training of both body and mind which renders him less prone to the dangers of Socialistic infection. For the moment it seems as if this effort had only accentuated the evil; but, on the evidence I have been able to collect, I am inclined to the opinion that this result is only analogous to the effect

produced on the human system by inoculation, for instance, with the small-pox virus. Febrile symptoms are produced for a time, in proportion to the greater or less susceptibility of the patient, but these in the vast majority of cases cool down, and the general health again becomes normal. Fatal cases now and again occur, as may conceivably happen in the present instance. The calculation, however, appears to me to have been thoroughly sound. Socialism was undoubtedly rampant and had to be checked. The only way to reach it was to recognise its origin in the discontent of the physically less well-fitted to survive, and to diminish as rapidly as possible their proportion.

This proportion had been growing because of the rapid increase in population, which every year provided nearly twice as many men as the Army could absorb on the scale laid down by the Estimates. At the time, viz. 1892–3, the idea that military service actually returned money to the State had hardly even been breathed. At any rate, when I first put it forward in that year in Berlin, my friends admitted its originality, and gave me full credit for its discovery.

Now it was well known and clearly seen that it was not the trained soldier who became a Socialist. He at least had found his place in society; also, being able to command, as a rule, good wages for his work and to marry the girl of his heart, he was generally well contented, and, in so far as he joined the Socialist ranks at all, he did so only to help himself as against the employer, not against the State, with whom he recognised he had no cause of quarrel.

Though thousands of young disciples entered the ranks, only tens emerged unconverted, common-sense and a healthy outdoor life having effected their cure. But as little over one-half of the manhood of the country could be received in the *cadres*, the margin of voting power might conceivably become a very narrow one; and it was too small to be convenient already. The idea of extending the benefits of this training to all, as far as possible, was therefore almost obvious. That this was, as a fact, the guiding principle underlying the change in the law, was universally admitted to me in confidence by all the many responsible officers with whom at the

time I discussed it; and, in fact, it remains the only conceivable hypothesis to explain the sudden change of front which the Government had to effect. In any country with more developed Parliamentary representation it must have proved fatal to its continuance in power.

Under the new system it became possible to enrol very nearly two-thirds of the annual contingent, but this increase in numbers and diminution of time for training threw an enormously greater amount of work on the Company Officers and Non-commissioned Officers if the same high level of efficiency as judged by Peace-time standards was to be maintained; and this efficiency the higher ranks of the Army, themselves unaffected by the change, seem to have considered a *sine qua non*.

At the time this seemed to me a mistake, for there is a limit beyond which men cannot with advantage be driven, and the result has sufficiently justified my prediction, for from that time forward the growth of discontent and the bullying which produces this consequence has been enormous.

I do not attach much importance to the testimony of such writers as Lieutenant Bilse, etc.; any coarse-minded egoists could produce equally sensational works from the material which human nature more or less everywhere places at their disposal. They abound in the literature of the French Army, and even in our own we have not escaped the taint, as the Surrey-side melodramas, whose placards, generally depicting a drunken officer in mess dress being hurled to the ground or recoiling backward before the virtuous indignation of the hero, who is always a full private, sufficiently indicate. But the more serious work of the author of 'Jena oder Sedan' deserves a closer study, for it reveals the best and the worst types of the Prussian Army, and shows in detail the gradual deterioration of the Non-commissioned Officers as a class to which I have in the above endeavoured to draw attention.

This evil seems to me one which threatens the maintenance of European Peace in the gravest possible manner, for successful War alone can put a stop to it; and when generations of statesmen have been trained in the spirit of Clausewitz's teaching they can only solve the problem in one

way. They cannot allow the striking force of their Army to fall below a certain point, for War means the 'survival of the fittest,' and to quote von der Goltz: 'The statesman who, seeing War inevitable and, being himself ready, hesitates to strike is guilty of a crime against his country.'

Here is a magnificent Army, deriving its nutriment from the pockets of the foreigner, and giving in return for the labour-life it absorbs from the individual a greater and improved capacity of wealth-producing power. Over against them stands a nation, too ignorant to understand, too proud to work, which, by a fortunate conjunction of chances, is temporarily in possession of all the most coveted markets, but which is living on its capital and neglecting its defences.

Write company for nation, and what board of directors would hesitate as to its policy, even if such policy involved a certain degree of risk to life and limb? If two rival lines of steamers, let us say, fight for the control of their particular line of carrying trade, does either give a thought to the starving families of the men thrown out of work by the success of one or the other? Does any individual director sleep any the less soundly for the ghosts of the men who have gone to their graves as incidents of their selfish struggle? I know something of shippers and shipping companies, and of the rate of death their operations annually entail, but I never knew or saw a director whose health appeared to suffer from remorse therefrom. And if not theirs, then why should the consciences of statesmen be more sensitive? What directors do for private gain, surely the trustees of the public may rightly risk and undertake for the sake of 'duty.'

Here we have the secret of the strength of such men as Bismarck, Moltke, and the old King William. Personally unselfish, they were trustees of the nation, and, unlike the average trustee, they never hesitated to risk, not only the lives and happiness of others, but their own, where a fair calculation of chances showed a reasonable prospect of a favourable balance for their beneficiaries.

What steps, then, would directors of a private concern take when confronted with a similar situation? Obviously they would not blurt out on the housetops their determination to

strike. They would quietly and scientifically prepare for the coming conflict, giving every reason but the right one for such preparations as it was impossible to conceal; and, like the shipping directors aforesaid, they would certainly not allow themselves to be deterred by thoughts of the blood-guiltiness certain to be evolved by the collision of the contending armed forces. They are all soldiers (or at least have undergone a great portion of a soldier's training), and it would be well if we in England could realise how they have been taught to regard this question.

'There are two broad principles on which their action is based, which enable them to override all possible humanitarian fallacies.

'"Duty outweighs all other considerations."

'"Human suffering is not cumulative."

'It will be well to examine whither these two principles, logically applied, will lead them.

'Taking the last first. If human suffering is not cumulative, then it is quite immaterial to a man whether he makes one widow or 5,000; whether, as a result of his actions, one person starves or 50,000; whether there are 5,000 wounded in his own or the enemy's lines, or 500,000, Every surgeon, every doctor, knows this truth as well as the soldier; and, as the former learn to keep the balance of their minds, no matter how crowded the wards of their hospitals may be, feeling only for the sufferings of the individual, so the soldier, who has, by resolute self-control, mastered the sentimental weaknesses of his nature, allows no question of the aggregate of suffering to influence him in the performance of what he believes to be his duty. Such a man will no more hesitate to order the destruction of London, in the execution of his duty, than to open fire on a single farmhouse building in the enemy's line of battle.

'And the more profoundly religious the man's convictions the further he is prepared to go.

'Witness Cromwell at Drogheda, and Gordon in China and the Soudan, when fighting had to be done. It is God's will that Wars should arise, and it is by God's will that the soldier is placed in a position of power and

responsibility for the defence of his country's interests. By God's will, also, he will do his utmost in that station of life to which it has pleased Him to call him.

'The responsibility he leaves to the Almighty; and if he is wrong, well, he can only be damned once, and there are no two eternities.

'If the soldier is an agnostic or an atheist, so much the worse for the enemy. If he possesses that strength of character which alone attains high command, and has been bred up amid scenes of suffering and violence—more especially in the hard school of defeat—he will push his advantages as a Commander to the utmost limits "expediency" dictates.

'All London might be in flames before his eyes; our streets be running blood; men, women, and children falling in thousands under the pitiless hail of shell-fire; but the "Cease fire" would not be sounded on that account any more than under similar conditions before Paris we should sound it ourselves.

'We did not spare Cronje's laager; we should not spare Paris; still less will the French spare London. Morally all three cases are on the same level.

'"Expediency," calculated in terms of foreign interference, is the sole restraining factor, and the prospect of outside interference on our behalf is exceedingly improbable. For every nation which owns even a single coasting steamer has something to gain from the withdrawal of the British flag even temporarily from the seas.

'The fate of the American carrying trade, during the Civil Wars from 1862–65, should never be forgotten; it disappeared, and only in the last ten years has it begun to re-establish itself.'[1]

These are the hard, brutal facts of the case, and if the Germans are not preparing for this struggle by every means within their power, history will ultimately pronounce on them the same verdict as it has already passed on their forefathers in 1805. On our own statesmen will fall the same condemnation and defeat if we neglect our present

[1] See *The New Battle of Dorking*, by the author, 1900.

opportunities for preparation to meet the certain collision of conflicting commercial interests that the future holds in store. I do not imagine that this collision, when it does occur, will be a strictly local one, confined to Great Britain and Germany alone, but rather anticipate at least a triple coalition against us, which must now inevitably arise from our too long delay in throwing overboard the fetish of Free Trade. It is immaterial to my argument whether we are right or wrong; the point is that we are in diametrical opposition on this matter to the whole of the Continent. If now we break with it, then if we are right in so doing the injury we shall inflict on our rivals will induce reprisals; if we are wrong, our evident decay will prove too much for the sum of the cupidity of all Continental nations to resist; whilst, if the Freetraders are correct, our steady growth of prosperity will equally bring about a coalition against us, for neither we nor they will submit to industrial strangulation without a struggle. Mr. Chamberlain's policy has come too late.

CHAPTER VIII

THE ARMIES OF FRANCE AND RUSSIA

In the two previous chapters I have shown the financial results which have accrued to Germany from the growth of her defensive forces, the corner stones of which are the principles of compulsory education and universal liability to service—the one being essentially the complement of the other, not only in War but in Peace—for without the stimulus to exertion supplied by the premium, in the shape of reduction in the period of service, held out to the youth of the Nation, the country would be lacking in the educated intelligence demanded for the administration and control of the labour power available.

In France, though on paper the same two corner stones have been in existence for the last thirty years, the results as yet can only be regarded as profoundly disappointing, and the reasons for this state of affairs deserve consideration.

The origin of the present difficulties must be sought far back in the time of the Revolution when the 'bourgeois' caste, the primary instigators of the whole trouble, refused to accept the principle of universal liability to service and watered it down by the admission of paid substitutes.

At the time this modification seemed conducive both to the efficiency of the Army and the economic interests of the nation. It seemed better in every way to exchange a willing made soldier for an unwilling civilian, and to meet the demands of the Wars in which the French Army were generally engaged there can be no doubt it was a thoroughly sound course. By its means France won her battles in Algiers, the Crimea, and Italy at a less cost of human life than she would have done under the terms of the original statute.

But when brought face to face with the fruits of her own

system, matured and perfected by half a century of Prussian forethought and thoroughness, she found that she must pay back tenfold in lives, and fortyfold in prestige, for the temporary saving her practical adaptation of principle to suit convenience had enabled her to secure.

Moltke, as editor of the Prussian Official History of the campaign, paid willing and eloquent testimony to the courage and devotion of the French soldier, and of that portion of his Officers who had risen from the ranks, but their blood was shed in vain, for the emasculated system, under which they had been trained, had rendered impossible the growth of a General Staff and Commanders fit to do justice to the qualities of their men.

In the chronic Wars of Napoleon's era the system worked well enough, but, in the period of almost chronic Peace that intervened, the presence of the old trained soldiers in the ranks, and of Officers who had risen from the same source amongst the Corps of Officers, removed all incentive and compulsion on the young Officers from the Cadet schools to master the essential alphabet of their duties, viz.: the step to step formation of the finished soldier from the raw material delivered by the Conscription Urns.

Even had the original law of 1798 been adhered to, it is very doubtful whether the result in 1870 would have been materially better than it was, for the Revolution itself had deprived the nation of the very mainspring of Prussian efficiency, viz.: an aristocracy with hereditary talent of command, sufficient in number to act as leaders and instructors of the people.

Prussia, in spite of her terrible death roll during the years of her trial, was able to find about one man in every fifty of her adults fit to be entrusted with command. France had not only exterminated whole families by the guillotine, but her Wars had made still greater inroads on the governing class, and, to crown all, her internal dissensions had rendered it practically impossible for more than one half of the remainder to serve in the Army at the same time. When the Orleanists were in, the Bonapartists were out, and when the Republic became established, both Bonapartists and Orleanists would

gladly have gone out together, had there been anywhere else to go to. It can easily be seen therefore how doubtful it is whether at any time she has been able to find even one in a hundred of her sons with the essential natural talent for leadership.

A strict Republican *régime* could of course offer no countenance to the theory of hereditary prescription. On paper nothing could have been further from the thoughts of the original framers of the military constitution than any toleration of such a principle. But War is a very practical schoolmaster, and face to face with danger and privation, the Darwinian theory of the survival of the fittest was fully justified; the elected leaders of the people fell into the background, the men of 'birth and breeding' (as in the Commonwealth under Cromwell) came to the front[1] and in the end Ney alone retained his military reputation, whilst all the others proved themselves unfitted for the higher ranks of command.

Nevertheless, had it not been so, actuarial facts must have proved too strong for Republican theories when Peace was restored, for in Peace the process of promotion is too slow, and for a man to rise from the ranks to the Marshal's baton would take, indeed must take, not one but several generations. Even now, though barely half the list of officers is filled from the ranks, old age overtakes the fortunate survivors before they can attain even battalion commands.

It may be argued that this would not be the case if all commissions were given from the ranks, that in fact the admission of a favoured class checks the promotion of the others. But actually this is not the case, for the favoured class circulate more rapidly. They have private means and can retire, whereas the men from the ranks cannot afford to go—and no scale of pensions any Treasury could even consider could hold out sufficient attractions to induce them to do so. In practice a working mean has to be found, and, since the French actuaries probably know their own business best, it is presumable that the system in force is about the best for their

[1] See de Fezensac's *Memoirs*, also Thiébault's and recent publications of the French General Staff.

requirements, even though it entails the presence of many a grey-haired Captain far too lethargic for his duties, and of Field Officers too old for their work.

We may take it, therefore, that duality of origin in the Corps of Officers is a necessary consequence of the evolution of the Nation, and proceed to study in detail the consequences which follow.

The favoured class, joining from the Cadet school of St. Cyr, reach their battalions with, on paper, a most superior military education. But, simply because they are still boys, they also possess an entire ignorance of the human-nature side of the raw material with which it becomes their duty to deal. The officers from the ranks (many years older, for fifteen years to gain a commission is a moderate time) have little education, but they know their men and the routine of the Service inside out. Now since the work of training the recruit is entirely repugnant to the average young gentleman in any and every clime (not because of original sin on his part, but because he instinctively feels that his ignorance of human nature must lead him into blunders in which he would rather not be found out), whilst the older soldier and man is absolutely secure in this his especial field, the bulk of the work gravitates naturally to the ranker. This leaves the St. Cyrien free (according to his inclinations) either to improve his time by devotion to book studies or to waste it, which is more general, after the manner of youth when left to itself in other than continental nations. 'Le sport' being exotic and not indigenous, the consequences in the mass of this freedom to frivol are far less favourable to efficiency in the field than is the case on this side of the channel. That I have not overstated my case will be evident from the following quotation taken from the pages of a singularly well-informed and thoughtful work,[1] and if it be urged that 1880 is a long time ago, the reply is that human nature changes but slowly, and a few months in a French garrison town will convince anyone, old enough to have trained his powers of

[1] From a German pamphlet formerly in my possession, published about 1880, with the title *Videant Consules*.

observation in these matters, of the substantial truth of this picture.

'The case of the French Army is very different. Still under the vivid impressions of *l'année terrible*, the legislators provided the nation, notwithstanding the protests of practical men who understood the military needs of the situation far better than the reformers, with an almost Chinese-like imitation of the Prussian military law; but facts are stronger than paper theories, and the results thus far are by no means encouraging.

'Though the upper classes—divided as they were before the outbreak of the War by allegiance to many political parties—sank all their grievances in presence of the common danger, very soon after the War had terminated party ties proved stronger than national interests, and the Republic rejected the services of some of the best men the country could boast of, besides making the service intolerable for hundreds of officers not immediately affected by the decrees of expulsion.

'The conduct of the troops themselves towards the inhabitants of the theatre of hostilities had done little to soften the hearts of the *bourgeoisie* towards the uniform, and the suppression of the Commune had further rendered them detestable to the proletariat.

'The young soldier, brought up to the age of twenty under republican ideas of equality, did not, and does not, take kindly to military obedience; and when the gilt is stripped off the gingerbread, and he finds that his military uniform is looked on as a social disgrace by the women of his acquaintance, his existence becomes a burden, and the barracks are regarded in the light of a prison. Under these conditions, only great tact and judgment can get willing obedience out of him, and this is precisely what he does not get.'

Republican principles in their integrity should absolutely preclude the monopolisation of the commissioned ranks by any particular class, hence promotion from the ranks is an integral factor of the French military system; but since, in time of Peace, promotion would be so slow that no man could hope to obtain even a major's rank under fifty, in practice a

compromise has had to be adopted, and about one-half of the officers are gazetted direct from the military colleges.[1]

[1] The following extracts from an admirable work, published in 1887, *L'Education de l'Infanterie Française*, by Col. de Flêtres, are given in support of my position, which is founded more on my own observation and study of the French press than on any one particular book or authority:—

'No sooner was the War of 1870 at an end, than it was admitted in France that we had been beaten because our leaders were *des ignorants*.

'They reproached us with knowing nothing of geography, and nothing of the three arms, or of strategy, and these reproaches were well founded. But what steps were taken to remedy these defects? One might have expected that our General Officers and their Staffs would have been called on to give proofs of their extended learning and skill at the manœuvres. Nothing of the sort was done, but courses of study so complete and all-embracing were introduced into the curriculum of the school at St. Cyr, that a pupil who had mastered them thoroughly only required to be able *to sit on a horse* to take command at once of a *corps d'armée*. But, up to date, no such pupil has made his appearance; and the result has been that young officers who have passed through St. Cyr are jacks-of-all-trades and masters of none.

'As for the others who have obtained their commission from the ranks, they have usually owed their promotion to the qualities they have given proof of in their position as Non-Commissioned Officers.

'Assuming that the authorities should adopt frankly, and with all its consequences, the principle of the independence of the Company, the *début* of the new system would be somewhat painful. A large number of our Captains, once master of their own action, would somewhat resemble the ancient hen who hatched the ducklings by mistake. Independence and initiative are admirable in the hands of those trained to use them, but how about those who have not this training? Those who for twenty years or more have lived in the grooves of ordinary regimental routine see nothing of what is going on around them. They have no ideal to set before themselves, and do not know what is required of them. To their eyes their men appear to manœuvre or drill with sufficient correctness, and what more is to be desired? For themselves they are satisfied, the wheels of routine revolve with the minimum expenditure of power on their part, and they are well contented. Besides, even if sound ideas were to issue from the fountain-head, it would take considerable time to assimilate them in our organism. *Natura non facit saltus*, and this old adage is, above all, applicable for men who are verging on forty years of age, and whose brains are closed to new sensations. After a certain age one wishes to continue to live as one has lived, without overriding the ruts of habit. . . .

'Actually we may say, without fear of contradiction, that our Company Officers have very little taste for the details of duty. The young pupils from St. Cyr do not go willingly near the barracks, and, to judge from their conversation, they are not allowed time enough to pursue their studies. But to study what? Perhaps plans of invading Germany by penetrating through Belgium, as we recently discovered a Sub-Lieutenant, with under three years' service, doing. No! that sort of knowledge is not required in the junior ranks; but what we do want them to know is how to impart to their recruits the sentiments of true soldiers, and the knowledge of those details of the service without which

The consequences that result are very serious. Regulations have to be framed to suit the capacity of the weakest intellect, and hence it becomes impossible to trust the company officers to the same extent as in other countries.

The military press blames the War Ministry for its centralising tendencies, but in fact the matter is beyond its control, and as inevitably follows on the conditions above sketched out as night follows day.

It is too often forgotten that in Peace-time social harmony within the Regiment is the best possible guarantee for efficiency in the field. Necessarily, however, such harmony is entirely lacking in French Regiments. As long as human nature remains what it is, the old Lieutenant of twenty-five years' service, who thoroughly understands his *métier*, will resent the interference of his more fortunate brother officer who, with only ten years' service, is still his senior in rank. Equally the highly educated young sprig of St. Cyr objects to the criticism of his grey-bearded Captain, who can hardly do more than read or write.

Neither can they mix in society off parade; their tastes are as different as their social rank, and there are always the wives to be considered.

If things are bad in the Regiment, they are far worse on the Staff. Naturally there is no room there for grey-bearded old warriors, however great their experience with the men. The Staff needs young and clever men in France, as elsewhere, and here the St. Cyriens have it all their own way. But because the rankers understand the business of breaking in the young recruit, this work naturally falls into their hands. Thus, with the best will in the world, the St. Cyrien hardly gets the chance he deserves. But it is very clear that without the intimate knowledge of the man and his needs,

an Army is powerless before an enemy. It was, thanks to this class of knowledge, and not because their young Officers were strategists, or because their Non-Commissioned Officers possessed, many of them, a really high degree of civilian education, that our neighbours across the frontier were able so rapidly to overcome our resistance; such knowledge minimises friction, and just as the designer of machinery must keep the idea of reducing friction in his moving parts to a minimum, so we, if we wish our huge mach ine for protecting our lives and country to work efficiently, must keep the same idea before our minds.'—Pp. 122-27.

which the responsibility of instruction alone can give, the Staff Officer is but a broken reed in the practical working of an Army.

The best insight into the condition of affairs within the French Army, is to be found in the columns of the French press, both military and civil. Of course, such sources of information require careful sifting and correction for party bias, but when every such allowance has been made, the central fact stands out clear and distinct, that the service is unpopular both to soldiers and civilians alike. Out of hundreds of cuttings, I select the three following :—

From the *Temps* (1890) :—'Our men are quick and of good will, but of love for their calling they have not a trace. The barracks to them are a prison ; the Colonel the governor, and the Officers warders.'

From the *Figaro* (1890) :—'The youth of our nation is educated by very different methods, but these methods all agree in one point, viz. in instilling into their pupils absolute hatred to military service.'

For the third, I have unfortunately lost the reference, but it is too instructive to be omitted :—

'To-morrow the reserves are to be dismissed to their homes. For the last eight days they have been killing time on the glacis, rehearsing the simplest motions of the manual and close order evolutions again and again under the supervision (?) of their Officers, former Non-Coms., who, for the most part, are totally ignorant. As for the "active" Officers, they long ago handed over their tasks to the others, and only occasionally came to look on as a matter of form ; they at least allowed themselves no illusions as to the uselessness of the whole.

'The reservist brought back with him all the deficiencies he always has had, and he will take them away again just as they were, when he puts on his plain clothes, to bring them up again in two years' time. To ascertain this, was it necessary to keep him marching backwards and forwards from the drill ground to the rifle ranges ?

'During the last week the military collapse has been complete ; the word of command awoke no longer any response ;

from sheer habit the men were led to the drill ground, they "grazed" up and down it once or twice, and then stood about chewing the cud of reflection. At five the "sheep-dogs" collected the herd again and led them back to their stables. Many a reservist on his return cried out, "My God! is it not a crime to keep us idling round here when there is so much to do at home?"'

Novels, too, form an important indication of the tendency of popular feeling, for books do not sell by the hundred thousand unless they strike the keynote of public desire. 'La Débâcle,' 'Sous-Offs,' 'Les Misères du Sabre,' 'Biri-Biri' and many others, deserve careful attention, for the worst features they reveal are checked and confirmed by the reports of courts-martial published from time to time in the military papers, together with the important fact that a yearly average of over fifty death sentences are awarded, and, for the most part, carried into execution in the Army. In 1895 the exact number was fifty-six.

The efforts that France has made during the last twenty years have been unequalled, and she has spent her money like water. Men are there, and organisation is there with all that money can do to render it perfect. But of that community of interest of all ranks, that uniformity of principle in employment, which alone guarantee great results in action, in common with the soundest critics of the country, I confess I can see but very little.[1]

To me there seem deeper reasons for the unsatisfactory state of things above set forward.

Primarily there is the racial tendency of the Latin-Gallic cross towards levelling down, not up. Whereas in the Anglo-Saxon races democracy implies freedom, allowing the individual to rise as high as his national ability will carry him, and to enjoy the full reward of his efforts, in France (as M. Gustav le Bon has convincingly shown in his 'Psychologie du Socialism') Democracy insists that anyone who rises, or tries to rise, above the plane of the crowd

[1] Since the above was written General Billot, the War Minister in 1895, addressed a speech to the journalists of France, which abundantly confirms the above views.

should be immediately pulled down to the common level. '*À bas*' to either class or individual—whether 'les Aristocrates,' 'les Capitalistes,' or 'les Bourgeoisie'—there is the whole philosophy of each successive revolution.

Hence the need of entrusting far greater powers of punishment to the French non-commissioned officers than obtains in any other Army in the world. A French sergeant can give a heavier punishment than can a British or a German captain. In the easy days of Peace-time preparation before the Great War of 1870, with the entirely different type of seven-year soldiers and paid substitutes, this power may not have exceeded the necessities of the case, there being little incentive to exercise it. But the whole situation was entirely changed when the principle of Universal Service was introduced. Then the smart of defeat and the desire for revenge caused all Officers, even the highest, to insist ruthlessly on a far stricter standard of obedience and energy.

As I have pointed out in the case of the German Army, since the adoption of the two-year service, the Captains, being driven by their superiors, had in turn to drive their own subordinates; and any Non-Commissioned Officer, or Officer risen from the ranks, when smarting under a reprimand for his own carelessness or inefficiency, is no fit man to be entrusted with the power of severely punishing those beneath him. If this has acted badly in Germany, even without these excessive powers, and where the Officers, though no longer all springing from an hereditary fighting stock, nevertheless enjoy community of social status—it can easily be imagined how much worse the thing must be under the aggravated conditions prevalent in the French Army.

Generally my own observation goes to show that the average French Officer, or Non-Commissioned Officer, treats his men with a large-hearted geniality and 'bonhommie' quite charming to witness; certainly he never threatens or bullies them in private. But now and again the veil has been lifted, and I have come across incidents of malice and revenge, generally due to injured pride, far beyond anything I have encountered in any other country. Then when a wretched man has been goaded beyond endurance into the commission of an offence,

the French Code is Draconic and the Officers inexorable. For throwing a forage cap at a Sergeant in England a man might get fifty-six days' hard labour; in France he would be sent to the penal battalions in Algiers, or he would be shot if it was thought that an example was needed at that particular moment. If in Germany, say 30 per cent. of the recruits come up with Socialist tendencies, probably 25 per cent. of these abjure their principles before the end of their service, leaving only 5 per cent. of the whole to go back to civil life as unreclaimable; this, at least, is my experience. But if in France 40 per cent. join with a fuddled mixture of anarchy and Socialism in their brains, 45 per cent. leave with anarchy and bitter hatred of all superiors in their hearts — where it is immeasurably more dangerous. When the two-year system comes into force matters will probably become worse still in France.

These things are thoroughly known and appreciated by the better class of French Officer, and no Army in the world can show anything approaching the devotion to duty and country which characterises the elect of their class—the men who have graduated in the school of defeat. In them lies the one hope for the future of their country, for no other men in the world have worked as they have done, or under conditions which would be sufficient to excuse despondent lethargy before any tribunal. When I read, as I am compelled to do, the pitiful grumbling of a certain section of our modern school of Officers against the imaginary hardships of their own position, and the want of encouragement of brains in our Army (as if 'brains' and not 'character' were the sole qualifications for command), I long for the pen of Carlyle to chastise such folly. Where our countrymen have scourged us with whips our French comrades have been lashed with scorpions, and for every petty slight or ingratitude, in selection or promotion inflicted on us, they have suffered tenfold worse. This must be so from the very nature of their surroundings, for where we at least have had one permanent bond of loyalty to the Crown to unite us, they have had to change their outward allegiance with every successive War Ministry; and not only are traditional and

hereditary tendencies—Royalism, Bonapartism, Nationalism —at work to rive their ranks, but the full power of the Roman Catholic Church has been put forward for years to undermine their solidarity.

When the history of the past thirty years comes to be written I can only trust that the splendid service which such men as Macmahon, Gallifet, Bonnal, Langlois, Brugères, Contanseau, de Cugnac, Foch, and many others, will receive the full credit they have richly deserved.

Where such men do not despair of their country (and their readiness to accept the German challenge in the recent Morocco crisis is sufficient evidence that it was not they, but their civilian Governors who shirked the responsibility), there must clearly be some good cause to justify their confidence. This I find in the practical grasp they have acquired of the true possibilities contained in M. le Bon's 'Psychologie des Foules.' As I have elsewhere in these pages insisted, every man possessing the attributes of a great commander must, somewhere or other in his mind, have a practical, if empiric, knowledge of the art of swaying a multitude—some more or less clear conception of the meaning of the 'resultant thought wave.' Thus throughout the whole of their modern military writings, even where these antedate M. le Bon, it seems to me that they have been ahead of the Professor in the practical application of the principles he has so ably formulated.

The French are far more susceptible, when collected in large bodies, to this influence of the 'resultant thought wave' than are more northern races, and it is easier for a great leader to generate this 'wave' in the quick intuitive French mind than in our more stolid Anglo-Saxon brain for example.

Napoleon is the proof of my contention. Our great Commanders, Cromwell, Wellington, Lee, and Grant, were crowd 'exponents,' not crowd 'leaders'; and the distinction, though subtle, is vital. Napoleon seized the dominant 'thought wave' of his Nation, and then, by sheer force of personality, directed it according to his will. Our Anglo-Saxon Commanders, possessing the faculty of mentally summing up the balance of the thoughts and passions of their surroundings, instinctively felt out the line of least resistance, adapted their

action upon it, and modelled their personal conduct accordingly. All were artists, but dealt with different materials. Napoleon commanding a British Army seems to me inconceivable; but Wellington or Grant in command of a French one would have been quite impossible.

Realising this distinction, the French Staff, for the past thirty years, have been sedulously tuning their Army to receive identical mental impressions, so that in presence of the enemy it will generate its own driving force. In fact, they are striving to create designedly the same conditions that Napoleon found ready to his hand in 1796. Given this force (though they certainly do not look for the avatar of a fresh Napoleon), they contend that a man possessed of a staunch character (and such an one only could have survived the past thirty years), one acting with a clear scientific perception of the value of the means at his disposal, will be able to create conditions that will turn all the passions of their race, which are far more easily excited than those of their probable enemies, in one united whole upon their aggressors. Then the great Leader will be found, for the conditions will create him as they did the first Napoleon. But they contend that, his coming having been consciously prepared, his discovery will take fewer weeks than it formerly took years, for the means now at their disposal—heliographs, the Press, and so forth—are immeasurably greater than anything Napoleon had to aid him a century ago.

After all, their outlook is by no means desperate; for, as long as France keeps her maritime communications open, the strain of War will fall far more heavily upon Germany. This must be the case, because the latter will be condemned to import food and raw material over totally inadequate railways, from districts as poor in the essential resources of modern industry as she is herself—*i.e.* Russia, Austria, and Italy. The numerical odds against France are roughly as six to four, but by the time the French have been driven back behind the Loire, the investment of Paris and the northern fortresses may well have reversed these numerical relations. Not only will there be long lines of communications to guard, but each fortress will retain before it German troops aggregating at least twice the strength of its own garrison. Port

Arthur has shown the world that fortifications, though immensely reduced in their relative value, are not yet negligible factors.[1]

If, therefore, from the whole of the above, it is evident that the French Army cannot show the same brilliant balance-sheet as that of its German neighbour, it nevertheless deserves to have credited to its account, that it was one of the principal factors in the regeneration of France after its year of disaster in '70–71. Here, again, it acted as did the Prussian Armies after Waterloo—the expenditure upon it steadied the commercial machinery of the country. What would have happened in its absence can best be realised by reading between the lines of the many writers who have investigated the phenomena presented by the rise of the Commune. Without the stability afforded by the presence of the Versaillist bayonets, commercial credit and the resumption of international trade would have been an impossibility. Without this external trade, which brought gold into France to supply the drain of her 200 million War indemnity, all progress would have been paralysed. If she still labours under the heaviest debt and taxation *per capita* of any European country, nevertheless she has her Army to thank for the fact that she exists at all.

The world at large has always wondered at the way in which France recovered from what seemed a crushing defeat. At the time it appeared almost miraculous, and even now it is, perhaps, difficult to decide what it actually was that saved her. She has, in the opinion of our own Free Traders, a double protective duty to fight—national and internal (octroi). Now, if military expenditure is wrong, Protection must be right; or, if Protection is wrong, then the Army must be the greatest boon to humanity. One of these two things was her salvation; they might both be right, but they couldn't both be wrong, or France would have gone under. Instead of doing this she attained almost unexampled prosperity in a marvellously short time, with a heavy War debt and taxation,

[1] This shows the importance of the 'Entente Cordiale' to France, but the French General Staff do not see it. General Bonnal ignores our Sea Power, and contends that our help on land will come too late.—*La Prochaine Guerre.*

and a large Army Estimate. It is a nice problem to solve satisfactorily. How did she do it with such warring factors in the sum she was called upon to prove?

Similarly, the case for military expenditure may be made out for both Austria and Italy; the former approximating more closely to the German type, the latter to the French one. Russia alone has only a downward tendency to record.

Here, however, the whole Nation was altogether too backward for the application of the new principle of Universal Service.

It is rather the custom to speak of Universal Service as if it had been the creation of a single mind, and Scharnhorst's name has been for ever associated with it. But, as I have pointed out elsewhere (vide Chapter VI.), this is far from having been the case. As far back as the sixteenth century, such master-minds as those of Johann of Nassau [1] and of Machiavelli [2] had warmly advocated it; and if their advocacy found no response, it was simply because Europe was not then ready to receive the idea.

Now Russia, with an illiterate population of some 90 per cent., was perhaps even further away from this ideal than Italy or the Rhine in the sixteenth century, and failure might have been foretold from the very outset.

As a Japanese Staff Officer pointed out to Sir Ian Hamilton before Liao-Yung, the mass of the Russians were intellectually behind the mechanical possibilities of their armament, and they would have been wiser had they adhered to the old Long Service standing Army ideal.

This remark carries far further than the speaker probably intended, for he spoke with his eyes still upon the battlefield before him. Actually it contains the truth both of our own and all Western Evolution, for a standing Army is the indispensable link between feudalism and nationality. It is the school in which the hereditary ruling caste learns to subordinate its own individual desires to the higher conception

[1] Graf Johanns desz Jüngern von Nassau 'Discurs wie die Unterthanen zur Kriegssachenn unnd nothwendigen Defension ihrer selbst anzuführen und willig zu machen.'—A.D. 1595.

[2] Machiavelli, 'I sette libri dell' arte della guerra.'

of duty towards the Nation. At first they see their duty towards the Crown alone; it takes generations before the Crown and Nation are fused in one; and then only as a consequence of the gradual growth of love for law and order. Our eighteenth century landowners were nearly as profligate and self-indulgent as the Russian boyards—some of our Irish landlords seem little better now; and our Officers before Marlborough cared as little for the people as did the Russian Guard Officers fifty years ago.

A century of War brought our own officers and people together. The former returned from the front, settled on their estates, and, having made no money in the Army, were compelled by self-interest to attend to the development of their property. Then they discovered that the men to whose courage they had often owed their lives, were the sons of these same common people (their tenants), whom as youths they had despised. These military landowners, bringing with them from the Army a high respect for law and order, by slow degrees began to make these qualities respected by a people whom, in their turn, they had learnt to understand and to value. The Russians skipped over this interregnum. Beginning by pouring intellectual education into minds unprepared for its reception, they struck at the very base of law and order. When, as a natural consequence, revolution resulted, they attempted to quell it with an instrument quite inefficient for the purpose, for this instrument was an army recruited from amongst the very people it was required to shoot down.

Now the Russians, though certainly the most peaceable people amongst the whole of the white nations, are the ones least susceptible to the idea of law—as a natural consequence of their surroundings. People settled in small communities can easily learn to adjust themselves to the mutual requirements of their very limited society; but they appear fundamentally incapable of understanding the absolute necessities of civilisation in large cities. They do not disobey wilfully, but simply because they do not understand when they are doing wrong. As I have said, to enforce law upon such a community is the cruellest trial to the discipline of a young soldier, himself sprung from the same surroundings,

even when such law is immeasurably less severe than that under which we suffered only a century ago—and from the first the Russian Army has been revolted by its task. The most intellectually intelligent class—the Artillery and Engineers—actually headed the revulsion. They saw quickly and more surely the hopeless corruption of the judges whose decisions they were compelled to enforce, and many of them threw in their lot with the party of Revolution. Being already looked up to and worshipped by their men as a consequence of their higher relative standard of morality, they became the 'nidus' in which the bacteria of socialism have been nourished.

Just nineteen years before the end of the Manchurian campaign, writing in the *Pioneer* in India, I predicted every step in Russia's downward path—though I confess I expected the final impulse to come from Europe and not from Asia. But from that very fact I anticipate a happier future for Russia than might otherwise have been the case. To have been crushed in arms against the Triple Alliance, whilst hampered in defence by the constriction of the capitalist, would never have brought the lesson of defeat home to the same degree. Moreover, the resulting commercial cataclysm would have paralysed recovery for a century at least.

Now that the lesson has been learnt by Russia, and her resources remain almost intact, again I venture on the prediction that in another twenty years, regeneration will come from the survivors of the Manchurian Army.

To the Company Officers of that Army all honour should be paid.[1] It was well worthy of Kouroupatkine's final panegyric. Beaten again and again by a foe it had been trained to despise, and betrayed repeatedly by the incompetence and insubordination of the older generation of Officers, its Company and Battalion Commanders had, in spite of all, kept their men together, and when the Treaty of Peace was finally decided, the Manchurian Army of Russia was in every respect fitter to take the field than it had been at the commencement of the War. Those 600,000 soldiers (about) who

[1] See Kouroupatkine's farewell address to the foreign officers attached to his Staff at Mukden.

returned from Manchuria had learnt under Kouroupatkine what law and order meant, and he himself had acquired under Skobeleff, and the French school, *the art of command*. When those 600,000 men, war-bitten, tried and proved, come to leaven the thirty million adults, or less, whom they left behind in Russia, the result will not be long in declaring itself. When it does, to my mind, history will at length do justice to that unfortunate Commander Kouroupatkine as the founder of a regenerate Russia.

CHAPTER IX

THE BRITISH ARMY SINCE 1815 TO 1900

The study of the growth of foreign armies, of their gradual adaptation to their surroundings, together with the reaction of those surroundings on military discipline and efficiency, is a matter relatively simple when contrasted with the extraordinary complexity which confronts us in our own case. The social progress of the other great Powers has been largely conditioned by military circumstances which are easy to understand. These were so overwhelming in their importance that all other considerations have had to give way to them. With us the process has been inverted. Our military development has had to give way to social readaptation, and though national existence is no less important to us than to our neighbours, the fact that it was in any degree threatened by the growth of other Nations has never been brought home to us with equal intensity. Hence, where, as in Germany, the very ablest minds have been compelled to bring all their powers to bear on the solution of the problems involved in the question of Army reform, not one of our really great thinkers seems to have considered the matter as worth serious consideration.

I do not venture to condemn the apparent want of prevision shown by our predecessors; on the contrary, my purpose is to explain how it happened that such neglect became not merely possible, but actually inevitable under the pressure of our surroundings. Then I would point out how the views on these matters, which prevailed until within the last few years, could not well have been other than they actually were.

Relatively to our total population, the actual number of

fighting men we have ever been called on to put into the field has always been comparatively small as compared with the demands made on other Nations, and, considering the Army only, our wars have scarcely ever taken place twice under similar conditions of topography, climate, or enemy.

Having thus only small fighting forces for which to provide Officers, we have never, so far, experienced any difficulty in finding men with the hereditary instinct for command in sufficient numbers for our needs. When these are judged by isolated, even if fairly numerous, events, their intellectual qualifications may seem to have ranked below the standard of other Nations. But this is easily accounted for by the want of continuity in our experience—the consequence of our worldwide Empire that has always tended to deter our Officers from consecutive military study. If even nowadays, when the only fault to be found with the information of all descriptions available for such study, is that it is too vast to be handled by a single mind, it can easily be imagined how impossible it must have been in the days before the Peninsular War to induce British Officers to realise that professional study could become for anyone the surest way to personal advancement.

This should suffice to explain the many breakdowns in the higher Commands of men who in their earlier years had given proof that they possessed zeal, energy, and ability in other fields. When one finds in the biographies of successive generations of distinguished men the same complaints of the inadequacy of the not less distinguished soldiers under whom, in their youth, they were compelled to serve, the presumption is strong, not that the youthful judgments of the future Leaders were unfounded, or the mere consequence of juvenile conceit, but that there was, and probably always will be, a fundamental cause to account for these apparent aberrations of the elder intellects.

Take the reputations sacrificed in our early American struggles. Our Commands were for the most part held by men who had been trained in a good school—let us say in Flanders—in a slow and monotonous war of positions, the traditions of which particular warfare had gradually per-

meated the whole Army. Now as these traditions were totally inapplicable to the bush fighting in the New World, neither Leaders nor men could adapt themselves to the new circumstances with sufficient rapidity. The young Officers, who were on active service for the first time, were quick enough to note the mistakes that were being made, but were also far too hasty to trace out to its origin the real cause from which they originated. These young fellows learnt their lesson and corrected all mistakes by bitter experience, and henceforth that experience coloured the whole course of their future careers. Either they read not at all, or, if they did try to study, they rejected everything that did not fit in with their preconceived opinions. Then, when in due course they themselves were placed by the fortune of War in command of men in some other theatre of operations than that in which they had won their spurs, they in turn failed, and provided a scapegoat for the collective insufficiencies of their juniors. And so it has always gone on, from Flanders to America, from America back to Holland, Egypt, and India ; from India to the Peninsula, and again from the Peninsula all over the world, until at length we find almost all ranks in South Africa condemning each other and themselves, because in this last instance we were confronted with conditions for which none of our previous experiences had in the least prepared us. *But* (and to me this is the most essential point), no matter how many reputations may have been sacrificed in the process, and no matter how heterogeneous or imperfect the material at their disposal, the Army itself has emerged not only ultimately successful, but admirably adapted for the continuance of the particular type of warfare in which it had been engaged, thus showing a uniform capacity for adapting itself to surrounding circumstances, which, to my mind, is the most precious augury for our future successes, no matter where future events may lead us.

Contrast this process of evolution with that of other Nations, and the reason for our present military backwardness at once will be apparent. The Germans and French, for example, have fought one another over and over again on much the same ground and under more or less similar

conditions. Thus they have a 'continuity of experience' on which to build up their military science, to which science we have nothing at all comparable. Then the epochs of victory and defeat, which have swayed now to one side now to the other, have given to each Army in turn the sympathy of the population behind them. This was requisite to enable them to carry out far-reaching military reforms, and it also attracted to their ranks, from time to time, the best intellects (not merely the most ambitious types) which each country could supply. It has not been for want of character that our attempts at reform have failed. It has been because, with the sole exception of the Great Duke himself, we never appear to have produced a Leader with an intellect equal to grasping the fundamental requirements of our position, and even he failed for want of any sufficient popular support behind him.

During the last century we have produced in every other walk of life men in every respect the intellectual equals of any on the Continent of Europe. It is the Army alone that has failed either to retain or attract them. But, had Napoleon's projected invasion of our coasts in 1805 become a reality, and had we undergone the fiery discipline of seeing our country swept from end to end by the most rapacious set of plunderers that modern War has ever produced, might we not also have found men, with minds as acute and capacious as Scharnhorst and Clausewitz,[1] willing to devote their attention to the solution of our defence problems, and would not their assistance have been most gladly welcomed by the public under such conditions? Be this as it may, the fact remains that the close of the Napoleonic epoch saw us in possession of the most perfect fighting machine in the whole world. The French Army had at length succumbed to the poison instilled into it by its own greatest Leader, *i.e.* the insatiable lust of plunder, and neither the Prussian or Austrian Armies had as yet had time to grow. But our very excellence proved the source of all our subsequent troubles. What need could there be to reform an organisation which had given us

[1] It is curious to note that not only Napoleon but Scharnhorst and Clausewitz, all at one time of their career endeavoured to enter the British Service.

a first Line fighting force of some 200,000 men, backed by 100,000 Militia and 400,000 Volunteers for home defence? No one stopped to inquire into the conditions which alone had rendered possible such a growth as this; still less did they note the accident (it was certainly not political foresight) which had thrown the bulk of the Regular Army precisely into that portion of Europe, viz. the Peninsula, in which their eighteenth-century conceptions of warfare and supply gave them an unqualified advantage over their French opponents. Seeing that even at the present day none of our statesmen, sailors, soldiers, or amateur reformers have completely realised the change in our situation brought about by steam and the telegraph in the conduct of modern warfare, we can hardly blame our ancestors if they too failed to understand the danger of surprise to which we are at present exposed. Neither can we reproach them for not appreciating the extraordinary industrial consequences which were to spring up from the seed of Scharnhorst's Reform in Germany, consequences which have reacted on every other Nation in turn, and now compel us to prepare for a struggle for existence similar in its nature (but far more intense in its character) to the one we thought we had laid for ever on the field of Waterloo.

We had only to keep the lead in the numbers and efficiency of our men-of-war, and our ocean trade would suffice to find us men sufficiently disciplined for the purpose of handling them. It follows that, under the protection of such a fleet, time enough would be gained to enable the machinery of Regulars, Militia, and Volunteers to 'grow' the Army necessary to wear down the financial power of any possible opponent. What wonder, then, if our statesmen (brought up to believe that 'money' not 'men' is the sinew of War) thought it wiser to direct our available man-power towards the acquisition of wealth, and failed to foresee that, as industrial competition became intense, victory even in this field would fall to the race which brought both discipline and organisation to bear against capital and individual skill?

What no one at the moment appears to have appreciated

was the fact that the change from a state of War to one of Peace *ipso facto* destroyed the keystone of our whole military superstructure. We had attained excellence only through continuity in our conditions, and the moment this continuity was interrupted, as in an electric circuit, the current which drove the machinery abruptly ceased. There was no longer any sufficient stimulus for individual exertion. The men already trained in the school of War knew far more than Peace time could teach them, and hence exactly the opposite process to that at work in Prussia immediately set in, and human nature settled down to the easiest way of getting through all routine duties, as it will do always and everywhere. Where in Prussia the constant succession of new drafts of recruits compelled senior Officers to 'decentralise,' the absence of such drafts drove ours to centralisation, and centralisation in turn forced our younger men to idleness simply because they had no longer any tangible incentive to exertion.

This brings in a point which civilians are very prone to overlook. Their work can be talked over and discussed on abstract grounds of 'general' experience, but War cannot be discussed in this manner except amongst equals in 'actual' experience. This becomes possible where there is a foundation of common knowledge to work upon, but even with military men so intense are the personal feelings evoked, so terrible often the scenes which are recalled, that as a rule, and almost in proportion to the precise degree of their experience, it is difficult to induce a soldier to talk about what he has seen. Moreover, no man likes to make himself out a hero, still less to run the risk of appearing to be a fool, and it is not easy to relate an incident in which one was a participator, in the presence of men who were eye-witnesses, without striking on one or other of these two rocks. If, therefore, military conversation does not flourish after a serious campaign amongst the senior Officers of a Mess, it can be imagined that the younger members are not encouraged to indulge in it either. Hence in process of time there originates the tradition that all military topics are to be debarred in the Mess, with the result that the young Officer, failing to appreciate the delicacy

of the original motive, very often runs away with the idea that his seniors take no interest in their profession, and he puts them down as a set of dunderheaded old imbeciles in consequence.

Under the Prussian system there was ample opportunity to hand on the oral tradition on the parade ground; but under ours this system died out, for the men had been through the same mill with the officers, and the younger generation dribbled in so gradually that its interests were forgotten.

Critics are apt to forget how rapidly time flies once one has turned into the forties, especially to men who have taken part in great historical events. To the average General inspecting his troops, it seems only yesterday that (say fifteen years ago) he fought side by side with the same fine old Regiments—and why should he watch them playing at soldiers, when he has so often seen them working at the real thing? He probably addresses a few complimentary remarks to the men, recalling the scenes they have passed through together; then he rides away to write his confidential report, never realising for one moment that, except for some half-dozen officers and N.C.O.s, there is hardly a man in the ranks who can even dimly realise the incidents to which he has alluded. In the old days this forgetfulness did not so much signify—the men changed so slowly that the 'continuity of tradition' remained unimpaired—but, since the introduction of Short Service, tradition is very rapidly swamped, and the fighting value of a given unit may bear little, if any, relation to its reputation of, say, twenty years ago, as Long Service Armies have found out to their bitter cost all over the world.[1]

Previous to the introduction of the Short Service system, there was practically no limit to the time for which a man might hold a command. Almost entirely we relied on the purchase system to maintain a sufficient flow of promotion. This it certainly did in some Regiments. But it lacked uniformity, and it generally succeeded in eliminating the very men the State should have been the most concerned to find, and to keep. A man once having attained the command of a

[1] I can recall several startling instances of this nature during the years from 1875–1890, both at home and in India.

Regiment, generally the summit of his ambition, hung on to it as long as it was physically possible for him to do so. No money payment could compensate him for the loss of prestige, and the sacrifice of comfort which his retirement of necessity involved. This was more particularly the case for his wife and family, and the more conspicuously deficient in character (indeed, in all the qualities needed for command) he happened to be, the more amenable he necessarily became to the influences of his home circle. This naturally checked promotion throughout the whole Regiment: consequently, those of the juniors who were either independent of their pay, or had character enough to go out in the world and endeavour to make a career for themselves, of course were the first to go. There comes a time in every man's life when he wearies of visiting the issue of rations, the cookhouses, and the men at their dinners. Once that is reached but little is needed to induce his resignation. The 'over regulation' value of his commission then often turned the scale, so that at length the purchase system automatically provided for the retention of the 'unfit' (the exact opposite of a natural or healthy organisation), whereas originally it had been intended to keep up a flow of promotion. Even in the non-purchase Arms—the Artillery and the Engineers—this system reacted most prejudicially. With them the general absence of private means compelled men to hold on to the positions they had won, and all the great prizes of the Army and Staff being reserved for the purchase Arms, ambitious men, seeing no hope of preferment in the scientific branches, naturally turned their talents in other directions.

The quality and amount of intellect and character which we lost by all these causes can best be estimated by a reference to the lists of the many scientific and literary societies of thirty years ago, where the number of military names is enormous in proportion to the relatively small number of retired Officers then available. Also it is well to note the fact that this exodus has continued to the present day; for private firms, well knowing the value of a sound military training, now hold out baits sufficient to attract all but the elect. As if all this were not enough, it must be remembered

that from about 1830 to 1850 the Army at home was constantly being employed in support of the police. This was the period in which so many of our small detached and semi-fortified barracks in or near the great manufacturing centres came into being. During the forties, as a reference to the 'Life of Sir Charles Napier' will show, feeling between the troops and the people often ran to a far more dangerous height than the present generation has any idea of. The populace hated the soldiers for the part they were called upon to play in interfering with the burning of mills, and the occasional lynching of an unpopular manager or owner, but the Army itself loathed its task and its consequences even more strenuously. Shut up in these filthy slum barracks, at Leeds, Manchester, Preston, etc., and sympathising far more with the workers than with the employers, existence became almost unendurable to all ranks. The men deserted, and the Officers sold out.

This is the origin of the extraordinary hatred and dread that so many of the older inhabitants of the manufacturing towns still cherish with regard to the King's uniform. But theirs is now a lost cause, and the only result of their abuse and disdain is to make the younger generation take a keener pride in their volunteering. It is noticeable how much higher the efficiency of the Volunteer Brigades ranks in those counties and districts where they still have an active opposition to encounter and to overcome. Incidentally I may here point out that it is to the same period that we owe both the reluctance and its justification to appearing in public in the King's uniform. In the twenty years following Waterloo, the dress regulations were very strictly enforced, and military tailors achieved a greater activity than they have since accomplished. But during the time of the Chartist Riots it became absolutely unsafe for an Officer in uniform to be seen alone in the streets; therefore, since men had to get about somehow, the wearing of plain clothes had to be sanctioned for safety's sake. As this was entirely in sympathy with the spirit of our public school training (which then, as now, tended to the suppression of all individuality), the example once given spread rapidly; all the more so

because the older officers are, and always have been, everywhere privately in sympathy with the movement.

That this should be so may need for the civilian a word of explanation. The soldier is above all things an idealist. He must needs be to carry him through the work he is sometimes called upon to face. His uniform is to him the outward and visible sign of the contract into which he has entered with his King—*i.e.* to give his life for his country if need be. Therefore to wear this uniform anywhere except under duly prescribed circumstances of duty or solemnity is as repugnant to him as it would be to a bishop to attend a music hall in full canonicals. Moreover, uniform implies medals; and however proud a man may be of these, his pride always has to struggle against his natural feeling of consideration for others less fortunate than himself. The feelings are complex, but they are there all the same; and, though some may contradict, I am certain the majority are with me in this.[1]

Suffering under all these untoward conditions, the marvel is that when at length it was called upon in 1854 the Army as a whole proved to be as good as it was. The explanation of this is, that India and the Colonies still kept alive the sacred flame. India particularly proved our true salvation, for there we still fought as an Army, and not in detachments. Then it was that while our experience in Afghanistan and the mountains of Scinde kept us supple, the admirable drill and discipline of the Sikhs compelled us to retain an adequate degree of cohesion. By the universal consent of all the Peninsular Veterans who took part in those campaigns (1846 and 1849) the fire of our enemy was better directed and more under control than that of any French troops which we ever encountered in Spain, while their ultimate resistance with tulwar and shield was far more determined than anything a European Army, once broken, could oppose to us. Against these Eastern opponents our troops were handled with a broad general grasp of first principles which left little to be desired.

[1] The universal satisfaction expressed by all senior ranks on the recent publication of the order forbidding uniform to be worn at fancy balls fully bears out my contention.

Unfortunately this experience could not be transferred to the fortress warfare of the Crimea; but later it gave us our Leaders for the Mutiny, and it kept alive the spirit of our Regulations, which at that time were in advance of anything of the kind in Europe. At the close of the fifties we certainly had tacticians in our Army second to none in the world. Unfortunately we possessed neither strategists nor organisers.

Under the circumstances this was unavoidable. How could we hope to get together a sufficient body of men of intellect to thrash out and winnow the truth from the mass of evidence so rapidly accumulating from different quarters of the globe, when the system in vogue was all the time automatically eliminating them? Had it been possible to collect under one roof the few whom love of the Service still retained in the Army, so that by discussion and comparison the many conflicting experiences might have been in a measure resolved, much, no doubt, could have been effected. But no such segregation was possible, for reasons which still prevail. The ablest men are always in demand, and the most ambitious will not risk absence from the front and the consequent loss of opportunities of distinction. Therefore failing any central and official rallying-point, the British Army evolved a thinking organ of its own, the Royal United Service Institution, where men could meet to read and discuss papers on various vital questions. But attendance there being unofficial and non-compulsory (thinking being contrary to the spirit of the Regulations) its development was exceeding slow. For the most part those whose interests inclined them to study followed the line of least resistance, and, as I have already pointed out, read only to confirm themselves in their individual opinions, a path men always follow when their theories are not subjected to everyday contact with hard practical facts; and even facts fail at times to widen the minds of those whose thinking groove is naturally a narrow one.

It must also be remembered that in the days when our fathers were at school no one had been taught how to learn. Experimental science was in its infancy, and it needed a whole generation of civil engineering practice to open men's eyes to the importance of scientific methods of investigation.

Science led the way, no doubt, but it was not until, by the progress of its applications, a very considerable section of the whole community became vitally concerned in life, limb, and fortune in the accuracy of its established facts that its methods began to force their way into educational practice. Even now they can hardly be said to have reached our public schools or the old universities.

When men take to study merely for the love of the thing, without previous education, or the pressure of responsibility to guide them, they inevitably become one-sided. Even if at first they approach their subject with open minds, by degrees for each man evidence begins to accumulate in a certain direction. Presently as it increases they become impatient with anything that appears to conflict with their pet prejudices and theories. After thirty years of age probably not one man in a thousand ever reads a newspaper, except those particular sheets devoted to his own side in politics, and this one-sidedness of view and opinion prevails in other matters also. After a time reason ceases to act, memory alone comes into play, and the man fossilises. Moreover there is a wide tendency throughout the race to think that changing one's opinion, even in deference to facts, is a sign of weakness.

Now as firmness of character is pre-eminently the characteristic of all great commanders whose example is held up for our admiration, the studious soldier, who loves to trace, in his own mind, at least some of the attributes which he admires in his self-chosen ideal, tends even more than most men to become an opinionated doctrinaire. He forgets that though certain broad principles must always prevail under certain given conditions, time and progress may modify their application in certain directions. It is not easy to think out in logical detail these apparently conflicting things; therefore he may often entrench himself in his theories, refusing to keep an open mind which would collect and judge all experience, personal and otherwise, by the light of reason and of ascertained fact. He may further be handicapped in his endeavours to give his fellow-soldiers the result of such trained observation by a

lack of literary skill. It is the exception to the rule for the man of action to develop such a talent, while the literary man rarely becomes a man of action. When these two come together—as they did in the persons of Cromwell and Wellington, for example—the combination is of the utmost value.

It is the literary man who wins the public ear. Moreover he has the undoubted advantage of being able to represent the deeds of his hero, or his scapegoat, in the manner best suited to his own convenience. Or he can, if bent on reform, or on driving home certain points likely to be overlooked, do both things with far more chance of success if he can wield a trenchant pen, or better still perhaps if he possesses the art of writing picturesquely without sacrificing truth to literary adornment.

But to return to the doctrinaire soldier just discussed. Such a condition of things could only result in confusion of thought and perpetuation of error. If even Napoleon and Wellington could not escape misrepresentation at the pens of their admirers, it can be imagined how poor are the chances for men of lesser magnitude at the hands or pens of their critics. It must not be forgotten that it was on these doctrinaires that the responsibility devolved of training the generation which in their turn have had to evolve order out of the chaos resulting from the sudden revolution in tactics and strategy which arose primarily from the introduction of the muzzle- not the breech-loading rifle. The consequences of their teaching are still clearly traceable in the evidence given before the South African and Norfolk Commissions.

It is not to be supposed that our fathers were in any way dead to the dangers which then threatened us. Many powerful and well-reasoned pamphlets appeared throughout the forties, to say nothing of the well-known correspondence between the Duke of Wellington and Sir John Burgoyne. Also many civilians, notably Sir Francis Head, did yeoman service in endeavouring to open the eyes of the public to our true position. But by this time the nation had lost all touch with the Services, and except the men actually with the colours we do not appear to have had more than 50,000 in

the whole country who had ever worn uniform—one in 400 of the total population.

It needed the terrible events in the Crimea and the Mutiny to wring the hearts of the British people, and to shake them from their lethargy of indifference. Then the embodiment of the Militia, followed rapidly by the enrolment of the Volunteers, prepared the country to deal with the problems presented by the Regular Army, which even then were pressing for solution.

It cannot exactly be said that recruiting for a long-service Army had actually broken down, for, taking one year with another, the numbers enlisted bore about the same ratio to the adult male population as heretofore.[1] But the demands on the Army were increasing out of all proportion to its numbers, and the total absence of a trained reserve was becoming apparent even to the blindest among us.

It was not the events of the Bohemian campaign of 1866, or the Franco-German War of 1870, which first woke up the War Office to the need of reform. Our officers had been fully alive to our deficiencies years before, but it needed the drastic object-lessons of these two campaigns at our very doors to raise the necessary driving power latent in public opinion to carry two great measures of reform—the abolition of purchase and the Short Service system—through the two Houses.

Into the history of these Acts it is unnecessary for me to enter—the fullest details of the struggle are to be read in the biographies and autobiographies of the principal actors. All I would call attention to here is that neither in the one nor the other case can I find any evidence that the real consequences of the measures were foreseen by any one of the men who engineered them.

The purchase question was forced through by appeals to democratic passion, and was resisted on the grounds of vested interests. The true line of defence was given us by Moltke, several years afterwards, when he showed its efficiency as a means of ensuring a constant flow of promotion, though even he failed to grasp the point I have endeavoured to bring out

[1] See Diagram No. I.

above—viz. that it attained this object by the elimination of the 'fittest.' The battle of Short Service was fought on the grounds of numbers and reserves alone. Its importance as a means of compelling the young officer to take an interest in his profession, and thus ultimately paving the way for the delegation of responsibility to the Company and Squadron Commander (with all the consequences that inevitably ensue from this delegation), was never alluded to even by its warmest supporters. Further, the extraordinary superficiality with which the case for the Bill was prepared is brought out by the failure of the Government to retain any lien, however slight, on the services of the Reserve men after the completion of their five years' liability. The men normally enlisting at eighteen, seven years' colour service and five in the Reserve brought them to their thirtieth birthdays. Since at that period both Germans and French were held fit for second Line service till their forty-fifth year in the Landwehr, and sixty-five in the Landsturm (or its equivalent), there seems no obvious reason why our men—presumably better disciplined and grounded by seven years with the colours at home and abroad, as against three years only, and that at home, in the Continental Armies—should have been left out of account in all our reckonings of available fighting strength.

Providentially, the point remained unnoticed. Had it been realised, the ground would have been cut from under the feet of all those who have so persistently, and to such good purpose, agitated for the development of our Land Forces. This will be at once apparent when we remember that there have not been wanting Governments during the last thirty years—could they have pointed to the fact that in 1900 we should possess no fewer than a million men trained under the colours for War—who would have found means to cut down our Auxiliary Forces, if not to destroy them altogether. This they would have done forgetting, or overlooking, the fact that it is only the existence of these Forces, in their present condition of relative *inefficiency*, which ensures the maintenance of the Navy and Army on their present footing. Also they would have ignored the fact that the Auxiliary Forces secure for our commercial development that minimum

of training in the elementary conceptions of duty and citizenship which alone renders possible our further expansion against the pressure of external competition.

Nowadays, with the lesson of the recent General Election of 1906 fresh in their minds, no Government is likely to tamper with either of these things, and the opportunity of sound reform is there for a born statesman to seize. The one point, however, which he must keep in mind is the interdependence of each part of the great Naval and Military whole. India fixes the minimum of our establishments and duration of service, and all else follows from this fundamental proposition.

Turning now to the conditions under which our New Model Army was compelled to develop itself, it seems necessary to bring out in further detail the difficulties the reformers had to contend with.

The downfall of the Purchase System was the opportunity of the 'pen and ink' tribe, also of all the ambitious men not too scrupulously inclined, to seize their chances. The ground for both was cleared in the most providential manner (so at least it must have appeared to them) by the apparent collapse of all existing tactical and strategical dogmas before the all-destroying fire-power of the breech-loader. We know now that this collapse was apparent only, not real. But it was many years before the truth of this matter saw the light, and the *arrivistes*[1] lost no time in getting to work. The Staff College (the principal and most valuable legacy the Crimean War had left us) provided their opportunity.

Hitherto, as I have explained above (Chapter IV.), experience of War very rightly had been held as the surest guide of competence; but, all the results of experience having been seemingly swept away, anyone who could translate or even read French and German pamphlets, and write out in readable form what he found therein, could defeat the oldest Generals—on paper. Seeing that even the strongest minds both in France and Germany could not, for the moment, stand against the

[1] French 'arriviste,' German 'Streber.' We have no term which exactly indicates all these two words imply in the current speech of the two armies—but the type exists nevertheless.

current of popular opinion, it is not to be wondered at that we too succumbed to it. But it is worth while pointing out that it is the principal function of a General Staff (to which the Staff College is but the necessary gate of approach) to form a rallying-point against these onslaughts of opinion, and by scientific analyses to bring the new facts down to their true bearing.

Had we possessed such an institution some half-century earlier, directed primarily by men of the capacity of a Clausewitz, for example, we, as unprejudiced spectators, free from the 'sensuous impressions of the battlefield' (against which he so particularly warns his readers), might have controlled the whole situation. By a few quite minor adjustments we might have brought our whole tactical training into line with the least possible disturbance, for the groundwork of our system was absolutely sound.

We know now that there was nothing whatever at all unusual or unprecedented in the phenomena of the 1870 battlefields, except the astounding devotion with which (viewed as a whole) the Prussian Infantry attempted again and again to achieve the impossible. This 'impossible' had nothing to do with the breech-loader *qua* breech-loader, but was conditioned entirely by the enormous superiority in range and accuracy which the French rifle possessed over the needle gun, and by the absence of any equivalent on either side for the case-shot preparation of the later Napoleonic era.

Eliminate these causes of disturbance, and the Franco-German battles would have followed the normal Napoleonic type,[1] for the topographical features and the men remained the same. The sole difference was that instead of the actual decision being fought out at 200 yards and under, it would have been given at 300 or 500 according as to whether the needle-gun or the chassepot had been the weapon employed on both sides.

Equality of armament is the essential condition governing all systems of tactics. This being non-existent, all subsequent confusion and trouble followed as a logical sequence. No nation in the world should have been in a better position to

[1] *Vide supra*, Chap. III.

approach this condition than we were, for we at least had had abundant experience all over the world as to what the unshaken fire-power of Infantry could effect in keeping a badly armed foe from closing with us. Literally the Germans in 1870 were but little better off against the French at 500 yards than were the Beloochees at Meanee against the Old Brown Bess, or the Mahdists at Omdurman against the Lee-Metford.

We are so prone to depreciate ourselves that it seems worth while to point out in passing that, in spite of all our disadvantages, the British Army as it stood—arms, equipment, and tactics—was better fitted for War in 1870 than either of the two combatant armies in the Franco-German campaign. It is only necessary to imagine it placed in the position of the Prussian Guard at Saint-Privat, or of the 38th Brigade (Von Wedell) at Mars la Tour, to convince oneself of the truth of this statement.

But in the absence of a true General Staff to guide us, the younger generation had it all their own way. Against their quotations in black and white from eye-witness reports our older Generals found nothing to say, and we may be thankful that our officers at that date—late fifties and the sixties—were so idle and adverse to study, or the state of our Army in 1899 would have been very much worse than it actually was.

For the reformers caught the ear of the Press, and for twenty years at least the latter preached the exact converse of Scharnhorst's immortal principle 'one should teach the soldier to know how to die, not how to avoid dying,' and though in the ten years immediately preceding the South African War a healthier tone had made its appearance in the better class of papers, the evil had become too deeply rooted in the minds of our commanders for them to dare to assume the responsibility of ordering men to die. Personally devoted though they were, the iron of the umpire's decisions had entered into their souls, and they fell back upon that most fatal maxim quoted so disparagingly by Lord Wolseley, 'If we fail we cannot lose many men.' We did fail, repeatedly, and the sum of our losses exceeded fivefold what a great resolution would have cost us.

Why was it that we had no true General Staff? The

reason is simple if we follow out the causes in action to which I have alluded above. It was one thing to order a Staff College to exist. That was the necessary preliminary measure. But it was quite another to ensure that it would immediately turn out good work.

First, a suitable Commandant had to be found. Certainly we got the best available, but his mind had been framed under his own personal direction twenty years before, and could not at once adjust itself to its new surroundings. The same held good with the men of his selection. Of a common doctrine of War, such as that which alone made possible the training of the Prussian Staff (the legacy of such an exceptional mind as that of Clausewitz), we possessed absolutely no trace. Hence a new one had to be created, and, very naturally, we followed the line of least resistance.

The Austro-Prussian and Franco-German Wars proved a perfect godsend to us, for now it seemed that we had providentially secured a fresh foundation and could safely lay aside our accumulated experience of former centuries. A few men with ready pens threw themselves into the breach, and the thing was done.

We had not understood the full meaning of Clausewitz's warning against attempting reform while still under the influence of the sensuous impressions of the battlefield, and we entirely failed to observe the different spirit in which both the recent combatants approached the same task. While we reasoned, 'the Germans were victorious, therefore what they did must be right; we have only to copy them, all will be well,' both Germans and French knew that without doubt they had jeopardised success again and again.[1] So they set to work and carefully studied their first-hand evidence (which, in our excuse it must be said, was not available to us), and traced out the errors they had made to their very ultimate causes, a process which the French only completed about the year 1895. The Germans, indeed, have hardly succeeded in attaining this completion even yet; at least, their literature so far shows no trace of its true appreciation, for they give isolated instances, more than a broad view of the whole.

[1] For examples, see the works of Foch, Bonnal, Meckel, Scherf, Hoenig, etc.

We might, indeed, have started an independent line of our own, and by the collection of facts and figures have produced a true solution of our difficulties based on mathematical and scientific methods, the only ones applicable to our case. But several causes were at work against us which acted and reacted one upon the other.

First, it does not appear that we possessed at the time any conception of the distinction between elementary and secondary education. Instead of making the Staff College into a true University, for experimental and original research, we made it a kind of repetition school for the backward. Very likely, however, no other solution was possible at the moment, for a practical difficulty faced us from the outset.

We could not throw open the College to strictly competitive selection from the beginning, for the result must have been to fill it exclusively with officers of the Scientific Arms, whose general intellectual training was relatively much higher then than it is now. Also, quite apart from the opposition which this swamping of the Staff by the Royal Artillery and Royal Engineers would have encountered from the rest of the Army, it would certainly have been altogether against the best interests of the Nation had the control of its land forces fallen into the hands of a numerically small fraction of the whole. This was more especially the case because they were more or less, by reason of their training, out of sympathy with the rest of the Army, and, as it happened, were far more intimately knit together by family relations and *esprit de corps* than were the scattered regiments of the Line or Cavalry, for although thirty to forty years ago the officers of each separate regiment were far more closely united than in the scientific corps, the regiments themselves, who might happen to lie alongside each other in camp or station abroad or at home, were barely united at all; whereas there is, and always has been, the warmest spirit of comradeship within the 'Royal Regiment' (of Artillery) itself and the 'Corps' (of Royal Engineers).

To get over this difficulty a strictly limited form of competition was introduced—each unit was allowed only one candidate at a time, resident at the college itself, the special Arms and the Indian Staff Corps receiving what was con-

sidered proportional representation, with the result that when at length the selection had been effected the difference between the attainments of the successful candidates at the head of the list and those at the bottom of it was simply immeasurable. Thus in one year I can recall there were fifteen R.A. and R.E. officers in order at the head of the list for whom there were only five vacancies, while the last man who qualified from a Line battalion had practically no competition whatever to face.

How to devise a scheme of instruction to suit such extremes of capacity might have puzzled a Solon. Possibly the course adopted was the only one practicable under the circumstances. All candidates were made to begin again at the beginning, and go through the same mill together, while Royal Engineers and Artillery Officers were set down side by side on the school benches to learn up, by heart, the very text-books which they had, often enough, written themselves.

This, however, was by no means all. Prejudice and inertia are at all times hard to overcome, and the College had to fight against both of these things. In those days each 'Regiment' was to its members the crown and summit of all their ambitions, hopes, and dreams. The rest of the Army existed mainly as a background to throw its virtues into higher relief, and Commanding Officers did not at all appreciate the idea of sacrificing the brightest and best of their Captains and Subalterns on the altar of military education. But it did seem to them a capital opportunity of getting rid of their uncongenial elements, and the previous formula of 'Send in your papers or get into Parliament' had a third qualifying clause tacked on to it. From henceforward the Staff College, being cheaper than the House, became a refuge for those men who felt themselves out of harmony with their surroundings but could not afford to cut themselves adrift from them altogether. In some cases, no doubt, this selection (the exact opposite in its spirit to that enjoined by the Queen's Regulations) undoubtedly did open the door for men who afterwards proved their merit. But generally the men thus urged to improve their position never had it in

them to make either good regimental or Staff Officers. They felt no strong attachment to their men, whose needs and necessities they did not attempt to understand, and the prospect of a two years' residence in one of the most attractive residential districts within an hour's rail of London, with the hope of several years in some quiet instructional centre hereafter, proved sufficient to induce them to confront examinations and the preliminary bookwork which they involved. Others looked upon the college as a heaven-sent opportunity of escape from an unhealthy station, selfishly ignoring the extra strain which their absence placed upon their comrades, who resented their action accordingly. Others again deemed it a capital spot to enjoy a two-years' honeymoon. What could even the most gifted Instructors do with such a heterogeneous lot? Pupils and Professors acted and reacted on each other, and the whole spirit of the place became listless and slipshod. Officers attended all lectures with military punctuality, but the fewer questions they asked the better the Instructors were pleased.

Meanwhile the public agitation evolved by the events of the Franco-German War had led to the introduction of 'examinations for promotion' throughout the Army, and since, thanks to the Purchase and Long Service systems, there was no teaching to be had in the different regiments (the proper school for officers), Garrison Instructors were required in very considerable numbers. As far as possible these were selected from the Staff College graduates.

But there were no books in existence from which to teach, so, more or less, each of these Instructors dashed into the literary field, read up hastily a few translations from French or German authorities, recalled what they had seen in the daily papers of the period, and thus equipped proceeded to produce a 'Guide to Promotion Examinations,' 'Hints on Tactics,' 'Notes on Topography,' etc., etc. Many of these books took the form of Questions and Answers, and civilian educationists can form some idea of the intellectual Sahara in which we then moved (some of us still linger) by picturing to themselves grown men between twenty and forty years of age laboriously learning up by heart the answers to such

conundrums as the following: *Q.* 'With what should the rifle be cleaned?'—*A.* 'With care.' *Q.* 'What should be kept in the marker's butt'?—*A.* 'Perfect silence.'

In justice to the candidates it must be stated that the nature of the questions put to them by the examiners made this, on the whole, the safest road to preferment. Either with the good-natured intention of making things easy for their victims or to save themselves trouble (also possibly because few of them knew anything about examining), they habitually set questions intended to stimulate memory, *not to induce reflection.* Even in such a subject as Strategy, during a period of fully twenty years, the wording of the questions was always a cue to the passage from which they were taken, and all that was necessary to secure the highest marks was to reproduce the context of such passages literally.

Fortunately the introduction of Short Service and the stimulus applied to study soon began to create a demand for better things. This arose partly from the examinations, and largely also, I am inclined to think, from the need experienced by Volunteer Adjutants for something more substantial in the way of intellectual training to fit them to cope with the intelligent questioning of their citizen comrades. Then the succession of small wars in which we now became engaged, from 1878 to 1884, gave the final impetus to the reform movement.

Men at last began to reach the Staff College in batches, having already two or more campaigns to their credit, and their dissatisfaction at the state of things they found there was so openly expressed at every club in the Empire (loudest and most outspoken of all were they in India) that at length the authorities had to intervene. Consequently during the nineties the place underwent a thorough reconstruction. But the Boer War broke out a little too soon for our convenience. A system of military education cannot be reformed in a day, particularly in a case where it is desirable to effect a fundamental change in the nature of the intellectual methods to be applied in the study of the principal subjects—*i.e.* Tactics and Strategy. Still I think that no one who is acquainted with the hopes and ideals of the chief actors in this reform

will question that they were working on lines which would soon have led them to sound foundations, but for the confusion introduced into the whole subject, mainly by the misdirected efforts of the Press during that unfortunate campaign.

It might be supposed that men holding positions high enough to influence opinion in the first educational establishment of the Army would act on their own experience alone, and remain unswayed by newspaper opinion; but in military matters this is far from being the case. The reason for this is one that Clausewitz thoroughly understood when, as pointed out above, he warned his countrymen against the 'sensuous impressions of the battlefield.'

Men remain human even in a General's full uniform, and only genius of the Napoleonic order (which is too rare to count on), or a mind trained to mathematical investigation, can escape from the hypnotic influence of their surroundings. During the forty years (before 1900) that the Staff College had been in existence about 1,200 officers had passed through it, of whom, at the most, 200 had felt the influence of the new departure. The remaining 1,000, each in their several places, had been inculcating (more or less) the theory of the destructive power of the breech-loader—the great fallacy of 1870. The doctrine of the avoidance of loss as the first and most important duty of the soldier had been disseminated, and practically the whole of the Volunteers and five-sixths of the Army were saturated with this pernicious conception. Including all ex-soldiers, Reservists, Volunteers who had passed through the ranks, etc., there were in round numbers about two million readers of the daily papers who all desired to be confirmed in their previous errors, and since the Press is run on commercial, not philanthropic lines, the tastes of these readers had to be pandered to. In vain was it pointed out to these leaders of public opinion, the newspapers, that, without exception in every country, statistical inquiry had demonstrated the fallacy of the awful hecatombs claimed by the new weapons. Except in India, the Press was practically unanimous in refusing the hospitality of its columns to any fresh information. The

consequence was that when the Boer War broke out they all went into the business (correspondents and troops alike) with the fixed conviction that since the losses in 1870 were appalling, in 1899, with the improved weapons, they must of necessity become 'unprecedented.'

Thus all the conditions necessary for an illustration of the *psychologie des foules* (a subject so ably dealt with by Dr. Gustav le Bon) were present. An enormous number of minds prepared to view the phenomena of which they were to be the witnesses from a certain aspect only. Thus they were rendered quite incapable, by the circumstances of their surroundings, of exercising, or being influenced by, any critical reasoning whatever.

I do not think, had our troops been pitted against ordinary European soldiers under equal conditions, that any unusual outbreak of nerves would have manifested itself. For as regards the Regular Regiments expanded by their own Reserves, they were held far too firmly in the hands of their leaders to have escaped from their guidance. Losses, even heavy ones, at the hands of an equal opponent were only to be expected, and things would have happened in accordance with the regulations under which we had all been trained. But no one had foreseen what actually did happen when we met the Boers, for nothing like it had ever occurred in military history since the days of the Parthians and Romans. Moreover, in presence of the new and startling phenomena which the first encounters between Boers and British revealed, practically everybody lost their heads, and the measures taken to meet the situation actually aggravated the difficulty by intensifying the danger to the individual soldier, which danger they were intended to reduce—viz. those of over-extension.[1]

I wish to make it perfectly clear that I do not criticise the conduct of individuals or the measures in themselves. On the contrary, I hold that these measures sufficiently answered their purpose, and give evidence of the quick adaptability of our officers as a whole, an advantage over those of other nations that we owe to our world-wide

[1] See Chap. III.

training. I only blame the spirit in which these measures were defended, because it emphasised the very dread of the weapon which it should have been our object to minimise. If, instead of harping on the avoidance of loss, we had insisted on the increased chances of securing a decisive victory which the adoption of a thinner line of battle would have afforded us, and had we justified this increase of extension by a full and frequent reference to the advantages we derived from our superior discipline, not one word could have been said against our attitude, for it would have been in entire accordance with a scientifically reasoned out appreciation of the facts. Against an enemy possessing the mobility of the Boers, and in a theatre of war so entirely favourable for the utilisation of this quality, it was obviously futile to endeavour to press home normal frontal attacks, the consequences of which the enemy could always evade by riding away. Hence no other course was practicable but to hold the enemy in front with the fewest rifles possible whilst the remainder, set free by the self-denial and courage of the retaining force, worked round his flanks and endeavoured to surround him.

If on a front of 1,000 yards 100 men only are sent in to attack, then each defender can give ten times the amount of attention to each individual assailant he would be able to afford if a thousand were coming on instead of one hundred. Again, though local advantages of cover may diminish the extent of the actual risk, cover implies hindrance to movement, and not only prolongs the duration of exposure to danger, but increases very materially the difficulty of combination in the attacking force, which combination it is the whole purpose of Peace-time training to secure.

So far from holding, therefore, that the events in South Africa revealed any fundamental defects, either in our training or organisation for War, I am of opinion that they afford the most abundant justification of both. And if not only civilian opinion, as manifested in contemporary publications, but much military opinion also, as demonstrated by the evidence given before the Royal Commission, is against

me, I am satisfied that I have, and shall receive still further in the future, the bulk of all expert testimony on the Continent[1] to support me. It is sufficient to point out as good grounds for my belief that, in spite of all the many hindrances to development we had encountered during our evolution from 1870 to 1900, we not only turned out an Army four times greater than our organisation was actually calculated to produce, but we succeeded in handling that Army under conditions which not only magnified many fold the imaginary dangers it had to confront, but intensified the actual impression of real dangers to which the individual was subjected, whilst withdrawing from him the moral support of immediate comradeship on which in a great measure he had been taught to rely. Our Peninsula Light Infantry earned the praise of the whole world, because they fought at twelve paces interval, but they had visible and adequate support always close behind them, and also the invisible but still more potent assistance of several years of almost unchequered success to nerve them to undaunted effort. But our New Model Army fought on a front of miles, often with no visible supports to back them, under the most unfavourable moral conditions conceivable, deprived of all confidence in their leaders, and subject at every turn to the ignorant and unfounded criticism of their 'armchair' countrymen. If 'white flag' incidents were not more common it is certainly not the daily Press we have to thank for it.

The real evil we have gained as a legacy from the Boer War lies in the fact that public confidence has been shaken in the Army, and futile attempts at reform have been foisted on us in ill-digested haste. The continuity of effort has been interrupted and an immense amount of energy misdirected. But though progress in tactical and strategical thought has been thrown back for thirty years, the injury is more on the surface than real. The Boer War was fought under conditions which afforded unusual play to individual intelligence. But when we next meet European troops we shall soon get

[1] See Fournier's *Guerre Sud Africaine*—the South African War, published by the General Staff, Berlin, and remarks by Von der Goltz, Bonnal, and others.

down to the bed-rock of national fighting instinct again, and it will take more than a two years' partial experience to eliminate or even seriously modify the hereditary accumulations of hundreds of generations of military experience. When the 'Great' War comes the pendulum of public feeling will again swing over and the '*psychologie des foules*' will manifest itself in the opposite direction. Under pressure of the terrible sufferings of our population which must arise when we have to fight for our national existence, the Press will howl for blood as they formerly shouted for its economy, and the well-meaning strategists and tacticians who try to show how omelettes are to be made without breaking eggs will have no better chance of obtaining a hearing then than had the pro-Boers in the last military crisis.

CHAPTER X

RECONSTRUCTION

Fleet and Army. Their relation to each other.

From the considerations stated in the previous chapters, it follows that the very essence of all existing military systems on the Continent lies in this, that each in proportion as it is adapted to its special environment contributes absolutely to the development of the Nation whose interest it at the same time safeguards. German progress, without the labour power developed by the training the men receive in the ranks, and the intellect the individuals themselves develop in their efforts to escape from them, *i.e.* the ranks, would be unthinkable. Left to their own devices after the great Napoleonic Wars had destroyed both wealth and credit, they, like Ireland, must have dwindled till population had sunk to the bare subsistence level of each country's agricultural resources. A sound military organisation is therefore the first condition of commercial expansion, *i.e.* of national growth.

It is, however, far more difficult to show that similar advantages must flow from any naval organisation on the lines with which we are at present familiar.

That our Fleet as an insurance policy is invaluable is nowadays so well recognised as hardly to be in need of proof, but too high a premium against risks can throttle an industry at its very inception, as many a maker of explosives has found out to his cost, and it is quite conceivable that if driven to compete with all the world in warship construction, we might find ourselves in like case.

Existing types of warships cannot be made to serve any directly useful commercial purpose, and thus earn their own keep, nor can the principle of short service and reserves,

the very essence of all satisfactory military organisations, be applied to their crews; at any rate not in our own case, where instant readiness for action is the indispensable element of our defence.

Probably this condition is only temporary. As in every other field, the gun will beat the armour, and speed combined with offensive power will be found to be the only remedy, as already on land. But this alone will not solve the problem of making warship construction commercially remunerative, for speed and cargo capacity at present are diametrically opposed to one another, and without the latter there can be no returns to defray the increased cost of machinery and boilers. The new Cunarders, the 'Mauretania' and 'Lusitania,' show the limits of the attainable under present conditions.

Since, however, the matter is vital for my purpose, I may be pardoned if I attempt to develop it at greater length.

Essentially, as everyone knows, the space occupied by boilers and coal is at the bottom of the whole problem of speed. To get another couple of knots an hour out of such vessels as the 'Campania' and 'Lucania'[1] would need such an increase in the boiler compartments and coal bunkers that the whole cubic contents of their hulls would not suffice to contain them. But how will it be if the internal-combustion engine[2] enables us to halve the boiler space for a given amount of power, or, better still, if some development of Tesla's arrangement for the manufacture of liquid air presently becomes commercially possible?

The amount of power that can be compressed into an engine-room under these circumstances would be practically without limit, and thus it seems possible that in time the area of the ship's vitals which must be protected may be so far reduced that warship and commercial construction need not diverge so materially as at present.

[1] See papers read before the Society of Naval Architects when the designing of the *Mauretania* and *Lusitania* were under discussion; also articles in the *Engineer*, 1903.

[2] This was written in 1905. The whole problem has since been taken up by Vickers, Maxim and other firms, and designs for vessels with internal combustion engines prepared.

There is still the vast structural strength of the warships needed to absorb the shock of recoil of the heavier guns, but even here the last word of engineering science has not been said, and sooner or later we shall arrive at a gun-mounting in which the shock of recoil will be so completely absorbed that no strain is transmitted to the deck at all.

Imagine the close of a great War in which all the battleships have mutually sent one another to the bottom, or into dock, and consider the expedients one would adopt to utilise our available resources against such old-fashioned fighting ships as the enemy might still have in existence, with speeds of 10 to 12 knots, and open to attack by modern 6-inch guns.

Guns, no matter what weight of shell they carry, are of no value unless they can hit, and this they can only hope to do if the men behind them can see something to aim at. Herein would lie the hope of the assailant.

Let us suppose a single vessel with the armament of the 'Inflexible,' for instance, attacked simultaneously by three modern mail steamers carrying each a couple of 6-inch at bow and stern and as many 4.7's and 12-pounders as their decks have room for. They could shroud their target with such a shower of bursting shells that not for one moment would the turret-sights be clear for a heavy gun to be trained on them. In return they might get an occasional hit from a 6-inch gun, but it would take several to sink a big mail steamer and meanwhile under the sustained fire of the assailants every vestige of superstructure on the single ship would be swept away and she would lie at the mercy of even a single torpedo boat;[1] indeed, with any luck on the side of the assailants, a steam launch and spar torpedo would suffice for her destruction.

I take it that after a few such experiences naval opinion would again revert to the original standpoint during the old three-decker days, a point of view which land soldiers have never abandoned, viz. that superiority of fire is one's best

[1] Written on the day of the battle of Tsushima. Subsequent information abundantly confirms my prediction. It was the rain of shells which swept the Russian ships that paralysed their gun power.

defence; hence every pound weight that can be saved from armour should be devoted to speed and armament, and from this idea will ultimately be evolved vessels with the carrying capacity of the 'Cedric' and 'Celtic' needing only a few adjustments to fit them to carry Artillery, the speed of the new Cunarders, and the unsinkableness of a lifeboat.

The change will not come all at once of course. Big guns will continue to be carried for a long time yet, but as the gun gains over the armour and speed is more and more recognised as the predominant factor of success, we shall find a solution of the flotation difficulty in one of several simple ways.

Our great trouble hitherto has been the danger of a shell reaching the cylindrical boilers and liberating by its explosion the whole vast potential energy contained in several tons of water at a temperature of some 400° F. This shock no vessel designed by man can resist, but the introduction of water-tube boilers has so far lessened the evil that if a shell did reach a boiler compartment the result would be identical whether the boiler exploded or not; every man in the compartment would be killed, but so they would be by the shell alone; the net result would thus remain the same.

Presently, too, we may hope to see the boilers disappear altogether. Then there remains the engine-room alone, and this is ever shrinking to smaller dimensions till at last in the hull of such enormous vessels as we must construct, to get the length necessary for the desired speed, it will be possible to so pack the compartments on either side of the engine-room that no shell can reach it unexploded, and finally if a shell does get in below the water line we shall manage to localise the effect to a single compartment and pump in air at a pressure sufficient to force the water out precisely as in a diving bell.

As the need for the use of armour thus declines, the need for armour-piercing guns would go likewise and man-killing, or perhaps better, 'aim-preventing' weapons, the smaller quick-firers in fact, would again come to the front. The gunner, knowing that if he can veil his target in smoke it is practically impossible for the target to hit him back, would revert to the Field Battery man's point of view (before the

Boer War) and sacrifice every pound of protection that could interfere with the development of the two essential factors, fire power and mobility, and just as a cow gun-battery with Infantry escort would have no shadow of a chance against three horse batteries and a Cavalry brigade, so a single vessel built for strength to carry guns heavier than a 4.7 or 6-inch would have no chance against three vessels built for speed but mounting say four 18-pounder quick-firers, to each of the other's slower and heavier guns.

Then some day we, or our adversaries, will discover that the large merchant vessels are better gun platforms than existing warships, and that the money at present sunk in the latter can be expended to greater advantage in building ships which pay their way and at the same time solve the problem of the economic employment of the trained fighting man on sea as it has already been solved on land.

This would lead to the nationalisation of the whole merchant fleets of the country: the fastest vessels and those few special ships always kept in commission as first line would be officered by combatant officers, precisely as at present, and would train the men in gunnery etc. for a couple of years as in land armies, and then pass them on to the Reserve to man our carrying fleets under Reserve officers, but all ready, ships and men, to take up their *rôle* of combatants at the shortest notice.

At present what practically prohibits the introduction of short service in the Navy is the impossibility of utilising the trained men when they leave the flag; for except in the best liners, the conditions of life in our merchant service are such that no bluejacket of his own free will even look at them; and this will always be the case as long as our ship-owners are exposed to the merciless competition of the present day.

Competition indeed has its uses, but it needs very few years of Indian or Chinese experience to prove that it has also very decided limitations. Where, as between two rival companies, one has resources enough to beat down the other, once the victory has been secured, only a very short-sighted policy will provide anything but a good service; for the faster

and better the means of intercommunication, whether by land or sea, the larger the volume of trade that can be handled in a given time unit, and of course the greater the profit. But where neither can oust the other, the strain soon begins to tell; worn-out boilers etc. cannot be replaced, harbour facilities cannot be renewed, and trade stagnates altogether, till exchange of commodities is reduced to the lowest limit of subsistence necessaries possible. There is and can be no progress, for all incentive to exertion is destroyed. Some ten years ago in Prussia [1] I was able to watch in detail the steps of such a downward progression, and the experience thus gained gave me an insight into the causes of stagnation in the countries of the East greater than all I had acquired from the perusal of many economic treatises.

It seems to me far from improbable that some such fate is destined to overtake our merchant service at no very distant date if something is not done to improve the conditions of life in our tramp steamers, which in the aggregate make up a very large proportion of our whole tonnage. Good men will not stand the conditions life on these vessels imposes on them, and competition makes it impossible for the masters to offer them better ones. Stop this internecine warfare, and, since the carrying trade of the world is after all the bedrock condition of our national existence, let us all combine against the foreigner, if necessary by subsidising heavily the whole of the merchant service, till we can create attractions sufficient to secure our best men.

I am well aware of all the stock arguments that will be brought against me, but I submit that these one and all overlook altogether the essential fact of the existing situation, 'the struggle for the survival of the fittest,' and are better fitted for Utopia than this workaday world.

Let us suppose a case. We lose our supremacy in the carrying trade, which passes to our commercial rivals. We should be as absolutely at their mercy as if our battleships were at the bottom of the sea—indeed even more so; for by

[1] On the Elbe navigation, the waterway being free to all, it paid no one to initiate an up-to-date river service of steamers. Contrast the Aire and Calder navigation between Leeds and Goole.

the expenditure of less than the twentieth part of the cost of a great War against us, our supplies of food and raw material could be as completely cut off from us as they would be after another Trafalgar. It is true that the consequent derangement of trade would act and react on all the rest of the world. But War would create equally serious conditions, and we know that but for our naval supremacy our enemies would not shun the risks. Our Free-traders seem hardly to realise what the result of a disastrous War would be for us, and imagine that our neighbours will think twice before they kill the goose that lays the golden eggs. Personally I believe they have thought the matter over far more than twice, and consider that when our goose is cooked there will be a much larger demand for their own eggs, even if these are not quite equal in quality to those we formerly supplied.

Under pressure of defeat and consequent War indemnities, capital would fly to other countries, the pick of our workmen would follow it, and the residue of the unemployable would shrink through famine and pestilence until their numbers were reduced to what the land itself could support. There might probably be a diminution of some five million customers for the victor's wares in these Islands, but this loss would be more than compensated by the addition of hundreds of millions elsewhere whom we at present supply. It appears to me that this possibility of peaceful commercial aggression demands far closer study than it has hitherto received. That it is feasible is sufficiently shown by the evolution of our own railway system and by that of the United States. A War with Great Britain might and probably would cost Germany in direct and indirect losses over one thousand million sterling, paid, practically speaking, in a lump sum down before any profit could be expected. But how far would even 2 per cent. on that sum go if annually applied to subsidising her merchant service?

The total capitalisation of the German Mercantile Marine may be put at 20 million sterling and its earning power is probably under 5 per cent.; a subsidy of 10 per cent., equalling 2 millions, would run most of our ships off the sea. But why not adopt the same method first?

Would not 5 per cent. subsidy to our own shipping enable us to crush all our competitors? Might not this be the cheapest insurance of all against War risks?

We pay men to protect our carrying trade. Would it not be perfectly logical to pay those who actually do the carrying, and would not the cost in the end come out of the same pockets? Whether these belonged to the consumer or producer is not germane to the present argument.

If by improving the conditions of the merchant service we succeeded in attracting a fair average of the men of our race to the sea, should we not reap in return advantages as real as those I have shown above to accrue from military service in the German Army?

The answer must, I consider, be in the affirmative, for both on the body and the character the consequences of a naval training are far superior to those which follow from land service. The sailor is not only a healthier animal, but his character is materially strengthened and improved by the necessity of facing danger throughout his whole existence. Danger is a better school for character than the class-room, and, as a German critic recently pointed out in the 'National Review,' character is exactly what our board schools fail to supply.

The point may, however, be considered definitely settled by the higher average standard of employment obtained by the sailor as compared with the soldier, after serving his time, and his general success in keeping it, the point where the ex-soldier most frequently fails.

It is a great misfortune that no attempt has been made to secure unimpeachable figures on this point, directly comparable with those supplied by the War Office; but the experience of all employers is uniformly in favour of the sailor, and I think all district visitors and others who work amongst the poor will confirm my statement that a really destitute bluejacket is the rarest figure of all to be met with either in our charitable institutions or on our streets.

There remains only the question whether such a change of employers would be welcomed by the men and officers of the Merchant Service, and my conviction is that the vast

majority would hail it with enthusiasm. For the well-conducted merchant-sailors the discipline of H.M. ships no longer possesses any terrors, and they would prefer it immeasurably to the arbitrary rule of the fist and belaying-pin to which they too often are compelled to submit, and for the officers to be relieved of the necessity for the employment of such means of violence to which even the best are at times compelled to resort would be the most desirable boon which could be conferred upon them. Brave men—and brave the vast majority are—do not knock men about because they like it, but simply because, with the ruffianly crews they are at times compelled to employ, no other means of maintaining discipline is possible under the circumstances.

As for any sailor objecting to the risk of becoming a combatant against his will, the idea is almost ludicrous when one considers the risks they have at all times been ready to assume when acting on storeships, transports or on other duties in support of the Regular Services; but actually my proposal would make no legal change in their status, for at the present moment the old press-gang laws, which are in fact still the law of the land, render them all liable to be compelled to fight if occasion demand it.

A point that might raise more serious discussion is whether any Government Office could undertake with any degree of success the administration of a service so vast and varied as the Mercantile Marine has become; and doubtless the unfortunate War Office would be cited as an awful warning.

The defence of the War Office I must leave to another occasion. Here I would only point out that the conditions are fundamentally different, and its failure, admitting for the sake of argument that it has failed, would prove nothing against my proposal.

The basic cause of War Office inefficiency lies in the want of continuity in the conditions under which our Army exists. Not only are Peace and War the most diametrically opposed states of existence possible to conceive, but even when War comes it is rarely that it happens twice in the same place.

Some years ago I was defending my friends then in office against the assaults of a very capable journalist and editor,

who was asking me what I supposed would happen to his paper if similar errors in judgment and execution as have been revealed in recent Blue-books were allowed to happen in his domain. I countered him by asking him how many mistakes he thought would occur if he had to work under similar conditions, his printing machinery idle for years at a time, no money to run the engines, and little opportunity to practise his staff, half of which at least would have to be kept in reserve. Further, there must be a complete uncertainty as to the amount of his next edition, or as to the language and type in which it was set up. I was proceeding to develop yet another point to complete the comparison, but at the idea of setting up his paper in Chinese type, he surrendered, and though compelled by the policy of his proprietor to throw an occasional shell towards Pall Mall, the acerbity of his attacks diminished very considerably. When at length he severed his connection with his office, to the lasting regret of many thousands of readers, I felt that the dormant conscience I had awakened had not been without its share in bringing about his resignation, which, taking all things into consideration, was most deeply to be deplored.

A seagoing organisation stands on an altogether different footing. The sea and its dangers are substantially the same all the world over, and every improvement in ships, boilers, engines, can be at once tested under Service conditions.

The one danger to be apprehended would be a tendency to over-standardisation in the assumed interests of economy, but to this all great concerns are liable, and the external competition of other nations would provide an ample corrective, absent for instance, in most of our great railway companies, which in some regions are masters in their own district.

Nor would the numbers to be handled prove a serious difficulty, although they would be scattered all over the world. They are not a quarter of those controlled by the War Office and are united by the most certain of all communications—the sea—whereas our regiments and detachments often have not even a made road behind them.

The actual transition from the one form to the other need

occasion no particular friction. Owners and shareholders would receive equitable compensation and all managers and officers continue to hold their existing positions during good behaviour, precisely as in the case of the transfer of any great commercial undertaking under normal conditions. It would be quite possible and economically politic to exercise greater consideration for individuals than under such conditions ordinary companies usually show, for at the moment of change no other persons to fill the posts would in fact be in existence. Better men would only appear as the new conditions began to work, which would, of course, be a gradual process.

Finally, if with the example of the Post Office employés before them, politicians might object to the creation of another privileged class, my reply is that no better means of countering the nuisance these persons are becoming could well be devised than the one I am advocating, for from the very nature of their employment combination for them is most difficult; and in so far as it is possible at all, the fact of their service bringing them in contact with all nations, sorts and conditions of men must make them sound on the one really essential point of our continued existence, viz. the necessity of united action against all foreign aggressors. They at least know from experience the value of an Englishman's birthright, and both by training and tradition would be the last to permit any tampering with the fundamental conditions on which it rests.[1]

One great advantage of my proposal is that it lends itself with peculiar aptitude to a system of Short Service and reserves for the Fleet, combined with the method of securing pensions by the purchase of annuities which has been so ably put forward for the Army by Major Roper-Caldbeck, the founder of the Army League.[2]

The essence of this proposal is a nineteen-year term of service in various categories of a remodelled Army, to which, however, there are to my mind several practical objections,

[1] I would recall here the part played in the Great Rebellion by the Fleet: it fought almost exclusively on the Parliamentary side.

[2] For details of this scheme, see Chapter XIV.

all of which would disappear if applied to the Sea Service considered as a whole.

A nineteen-year term of service I consider far too long for the soldier however it may be broken up into first line service, reserve, garrison duty, etc., for it passes the wit of man to devise any system which will keep a battalion of trained soldiers averaging between thirty and forty years of age in contented efficiency. You cannot drill them like recruits, they know all there is to be learnt in that direction, and if they are sufficient in number to man the works and guns assigned to them in War, they are far more than are necessary to keep them in order in peace. They inevitably become idle, resent having to do their own fatigues, and find ready sympathisers to listen to and publish their complaints for political reasons. The proportion of married men is of necessity very high, their death and invaliding rates heavy, and the mere fact that many of them are still private soldiers after perhaps fifteen years' service is the strongest argument against recruiting that can be displayed.

None of these drawbacks, however, arise with seamen. The dangers of their daily calling compel them to keep efficient, and where promotion has to be won by merit displayed under service conditions, there is as a rule but little grumbling or discontent. Moreover, if a man elects for the sea, he generally sticks to it as long as it will stick to him. He may desert from a particular ship for special reasons, but a few weeks generally finds him again on another, and since the services of these men, whether as combatants or carriers, are vital to our existence, it would pay us well to make their calling popular.

Many years must, however, elapse before these reforms can be carried through in their entirety, and meanwhile we are threatened by a competition in the building of ironclads which in the opinion of many may prove almost as fatal to our finances, if our fiscal policy is continued without alteration, as even War itself; and in sheer terror at the prospect we are being advised by men of undeniable ability to hold our hand and seek in alliances the strength they hold that we cannot afford to pay for ourselves.

I submit, on the other hand, that it is only by our strength that we can attract reliable allies, and any relaxation in our building programmes would be the surest way to lose such allies or prospect of alliances as we at present possess.

Further, I suggest that we have no reason to fear such a trial of strength should it be forced upon us, for our insular position and geological structure, to which we owe our national character, all three give us advantages over all possible competitors, and every step in mechanical progress tends to accentuate these advantages.

To realise all the ocean means to us, look at a map of the world and consider the Empire not as a number of little red dots, separated by water, but as the sea itself, framed by our possessions.

Primarily, since all commerce involves an interchange of commodities across a distance, it may be greater or less—across the Atlantic or only across the counter, for instance—since our ocean highways cost nothing for construction or maintenance, we start with an initial trading advantage over all other great nations. It costs less to bring a ton of merchandise from any port on the ocean to London than to carry one from any point on the Russian frontier to Moscow, for instance. Hence, if it comes to a real struggle for the markets of the world, we start with that much in our favour; or, from another point of view, our trade can actually stand heavier taxation than any of its rivals.

Then take the mean distance traversed by our ocean-borne produce and compare the freight charges with those incurred, let us say, in Russia, Germany, or even France, the mean distance of haulage in each being approximately 600, 300, and 200 miles respectively.

Freights vary so enormously on land owing to structural difficulties, etc., that it is impossible to formulate any exact rates between the cost of land and sea transport, but for average cargoes a ratio of twenty to one is probably well within the mark. Hence, since our mean distance of ocean transport does not exceed 3,500 miles, it practically comes to this, that our apparently widely scattered Empire is in reality

the most compact in the world. And since the limit of the carrying power of railway lines has almost been reached, whilst that of the ocean-going vessel is not yet within view, every year seems likely to add to our superiority in this respect.

As an illustration of the idea, let us compare the cost and carrying power of the Siberian Railway with that of a line of steamers to deliver an equal quantity of goods at an equal distance from, say, Southampton.

The railway cost 40 millions sterling, and will deliver about twelve trains a day, containing 6,000 tons.

The 'Cedric' or 'Celtic' cost about 600,000*l.*, and since each carries, say, 18,000 tons, an arrival every three days would suffice to keep up the same rate of delivery.

The distance being 5,000 knots and the speed twenty, the passage would require a little over ten days. Nine 'Cedrics,' therefore, at a cost of about 5½ millions would abundantly meet the required demand, and every daily charge would be reduced in somewhat the same proportion.

As regards our insular position, it seems only necessary to refer to the point usually insisted on by elementary text-books and class-room lectures, viz. that it confers upon us the advantage of interior lines against the attacks of any European coalition, in order to warn my readers against accepting the proposition as if that settled the question without need of further discussion. But this is very far from being the case. A nut may be regarded as on interior lines relatively to the jaws of the crackers, but nut-crackers, even when 'made in Germany,' have an awkward habit of cracking the nut. The nut only escapes if either mobility is imparted to it and it escapes the crackers, or if it is of harder material than the crackers, and so breaks them, or possesses a part at least of both qualifications. Even as between Armies on land, these essential points are very often overlooked or forgotten.

Certain great Generals having fought and won great campaigns on this method, critics have assumed that the form was the secret of success and not the genius of the Leader—they have not paused to consider what the probable result would have been had the Generals changed Armies.

Actually if a sufficient number of examples are compared it will be found that it is only *great* Commanders who have succeeded on interior lines, and the secret of their success has always lain in their power of imparting superior determination or mobility to their men, or a little of both, thanks to which they have been able either to break the jaws of the crackers or to evade their grip altogether.

Further, when led by such men, victory has always had an exceptional effect in raising the spirits of their troops, and in spite of heavy punishment, their diminished ranks have developed a relatively higher capacity of endurance in a second day's fighting than in the first.

In Naval Warfare, however, where the means of offence are essentially mechanical in their nature, the power of a Commander may be paralysed by the material damage to his ships and guns. Even Nelson's genius could not, unaided, repair a damaged gun-mounting or restore the steaming power of furnaces with their funnels shot away—time and the dockyard alone can meet such exigencies—and hence it may well happen that a fleet victorious against one wing of an enemy's attack may be beaten the next day by a comparatively insignificant force of vessels fresh out of harbour.

The results of Tsushima must not cause us to overlook this most important point, for though it is hardly possible to conceive a naval battle fought with resolution on both sides ending in any other way but with the utter destruction of the beaten side, the damage inflicted on the victor may paralyse his further efforts for many days, and if every ship has taken its fair share in the battle, it may very well happen that both in speed and gun-power it may be reduced to such a degree as to be at the mercy of half the number of fresh vessels next morning.

Take a concrete case of a centrally situated fleet of twelve vessels attacking and destroying a smaller one of only six, all twelve combining their efforts for the purpose, which is a legitimate and proper method of employing any military force, for you can never be too strong at the decisive point. Next morning its Admiral finds himself with say three vessels down to six knots speed, five with ten, and the remainder

perhaps twelve ; his gun-power also is materially diminished and his steering as a fleet somewhat eccentric ; what chance would he have against a fresh fleet of only four vessels capable of steaming at fifteen knots and with all its guns intact ? It would be Tsushima over again, with the victorious Admiral of the day before in Rojdestvensky's position.

Our only way of utilising the advantages of our position seems to me to be in the study of the soundings of the principal naval defiles we have to guard, and the economic employment of our ships to suit the special circumstances.

The striking power of an Army is as the product of the efficiency of its three principal Arms, Cavalry, Artillery, and Infantry. For Cavalry substitute Destroyers, and I submit that just as a really efficient and mobile Cavalry suitably employed may render it possible to achieve great results even with an inferior Infantry, so by a judicious use of our destroyers we might effect much with our larger vessels, even though these were of an inferior quality.

For instance, could not a smart flotilla of destroyers, backed by the second class ironclads and protected cruisers we have just discarded, if employed to blockade the mouth of the Baltic, set free one of our best and most powerful sea-going squadrons for employment elsewhere ?

It is, perhaps, easier to guarantee victory with superior tools, but the art of the Leader consists in making the best practical use of the means at hand for the attainment of the object in view, and it appears to me a mistaken view of a Leader's part to refuse to avail one's self of any means at hand as long as they possess any offensive power at all.[1]

I am, of course, well aware of the difficulty under existing circumstances of manning more ships, but I suggest that it would be a sounder economic policy to give to more men a training which would not only enable them to fight their ships, but would also make them more useful elements of our

[1] This page was written as an argument against the policy of 'scrapping' our older vessels over-hastily, and has been abundantly rectified by the good service done in the Russo-Japanese War by vessels older even than those we had condemned.

social fabric than the average of those who have not undergone such training can possibly hope to become.

As for the argument that it would be inhuman to send men into action in any vessels but the best that money can supply, one can only ask where the Nation would now have been had our statesmen in the past been influenced by such ideas. I take it that it was the ability of our race to fight *somehow*, in any and every class of ship, that on the whole turned the scale of Naval supremacy in our favour.

As regards our geological conditions, it seems unnecessary to labour the point as to the advantage we derive from our supplies of Welsh coal, or of the other metallurgical resources which have conditioned the evolution of our skilled artisans, engineers, and so forth; on these there remains nothing now to be said; there are, however, other aspects of the question which deserve more attention from the public than they receive, as they really go to the root of the whole matter of the actual, as distinguished from the paper, strength of our Fleets.

The potential fighting power of any naval armament does not depend on the number of ships and guns it comprises, or even on the skill and courage of the crews, for circumstances might easily arise which would entirely neutralise the value of either or both.

Rojdestvensky's Fleet is a case in point. Without the infringement of neutrality permitted by France, three times his resources would have counted for nothing in the recent struggle. Even as things actually stood, his Fleet went into action crippled by conditions which in themselves must have practically neutralised the effects of victory however brilliant it might have proved, for he had nowhere to go to refit, the resources of Vladivostock being quite inadequate to repair the serious damage he was certain to incur, even if after the battle he would still have had coal to reach it. The Japanese, however, could have broken off the action at any time that suited their purpose, and with their dockyard resources close at hand could soon have been ready for sea again.

Hence to obtain true efficiency it is necessary to expend for every unit of the Fleet a very considerable sum for the

provision of harbours, docks, coaling stations, and all other accessories, and here we start with an enormous advantage over all other nations.

Unfortunately, it is almost impossible to reduce these to numerical expressions, but the following points may suffice to make the position clearer.

Over and above all else in all military operations, the will-power of the Commander is predominant. Now, even the will-power of a Napoleon has its limitations, and the greater the demands made on it by the uncertainties of his position, the sooner the breakdown must arrive.

For instance, the amount of available coal on board the enemy's ships may completely condition the strategy to be pursued. Admiral Togo, had he met his enemy under the same conditions as to bunkers, but in the open sea, need only have hung on his enemy's flanks for a day or two longer to have had him almost at his mercy without firing a shot. Imagine the relative tension on the minds of the two Commanders under such circumstances, and transfer the idea to the case of a British Squadron, fresh from, say, Singapore, meeting a German Pacific Squadron half-way across the Indian Ocean.

South Africa afforded us, on land, in the latter stages of the War, almost an exact parallel to the above conditions. In mobility we were by that time nearly equal, but whereas our line of retreat was always obvious to our enemies, we never knew which of many they might choose, or which base they had visited last. If, under these conditions, De Wet and his comrades so often rode round us, it was not because they were better men than our Leaders, but because the situation made much smaller demands on their judgment and will-power than it did on ours.

Hence we start with an immense advantage over our possible enemies in the race for supremacy. Our Fleets, viewed as a whole, are relatively far more powerful (though still not numerically powerful enough) than any coalition they can well be called upon to face; and, further, because in all harbour and dock work the expense of foundations is always an enormous item, every sovereign we spend in

their construction produces a greater effective result than either in Germany or Russia, for we find, averaging one place with another, that we get down to bedrock foundations at less cost than is possible on the northern and western shores of the Baltic.

The cost of dredging has also to be considered, and here, if our rivals attempt to emulate us in gun-power and general seaworthiness of units, for the Germans, at least, it must very soon become prohibitive.

Since the above lines were written the 'Dreadnought' has been passed into the service, and we are told that Germany—indeed, all Powers—are about to follow our example. As a preliminary, the former Power has just voted ten millions sterling for the deepening and improvement of the Kiel Canal.

The same capital expenditure would give us the Clyde-Forth Canal—an undertaking which, even if not immediately commercially profitable, would be equivalent to the addition of another four battleships, at least, to our Home Fleet—actually as against invasion, as time is the essence of the whole situation, it might be worth even more. The introduction of these monster ships, in fact, will more than double the cost of such proposed undertakings as the French Atlantic-Mediterranean Canal and the Russian Black Sea and Baltic Canal, works which would formerly, say twenty years ago, have added enormously to the effective power of either fleet. Nowadays the expenditure their construction must involve could be laid out to greater advantage in the building of more ships.

CHAPTER XI

THE PROBLEM OF INVASION

In a foregoing chapter I trust I have made it sufficiently clear that, except by treachery, our predominance of Sea-power is never likely to be wrested from us, and that though for a time the maintenance of our present relative superiority may cost us a heavy outlay (for which it will be difficult to show direct commercial returns), it is probable that before many years are over our Navy will be as much a dividend-producing asset as the Post Office or the German State-owned railways.

But the object of all military preparations is not merely to guarantee ultimate victory, but primarily to preserve international Peace; for quite apart from the dead, whom we can never recall to life, or the maimed, for whose suffering no monetary compensation can avail, War, even victorious War, entails a disruption of all commercial credit, and a destruction of property which must set back the clock of progress by very many decades of years. Indeed, it may compromise the future of the Nation as certainly (if more slowly) as defeat itself. We may crush our open enemies, and wring indemnities from them, but if the close of operations finds our ocean-carrying power in the hands of neutral Powers, the foundation-stone of our whole financial system will be gone and we may never again be in a position to regain it.

Surely, with this always in view, the wisest line for us to follow will be to build up our defensive organisation in such a manner that it shall ensure the maintenance of Peace. 'For a strong man armed, his goods are in safety,' and if it can be shown (as I trust I shall be able to do convincingly)

that only by adhering to a sound policy with regard to our land forces will the integrity of our maritime supremacy be attained, can there be any hesitation as to the undeviating course we should pursue?

A Navy alone can never be relied on to preserve the Peace, because of itself it is incapable of bringing the last supreme argument of force home to the very hearts of the inland peoples—and *it is the people we have to reach*, as in the last resort they are nowadays everywhere the ultimate masters. Even in Germany, the Emperor could not for long defy the united will of the Nation.

Our surest guarantee would therefore be a well-trained Army, numerically sufficient to ensure respect, standing behind the overwhelming Navy we may be considered at present to possess. Probably an organised force of some three million men would suffice us, and our population could provide it if subjected to the ordinary law of Universal Service common nowadays to the whole of Europe. But the effort to do this, though quite conceivable, would so hamper our Colonial expansion and paralyse our industries that we should succumb to Peace-time commercial competition with results ultimately as disastrous as those of War.

I have already shown that German industries actually thrive under Universal Service, and the question therefore naturally arises, why should I anticipate for Britain results exactly the reverse?

The reply is, that the circumstances of our environment are so entirely different that, through them, we are deprived of the great driving force which makes the machinery work in Germany—viz. the obvious and palpable danger which military unreadiness must entail on all their land frontiers. Not even the destruction of our whole Navy—which presumably would not go to the bottom unaccompanied—could make the consequences of neglect of our land forces sufficiently apparent to the average man in the street; for though a relatively small force—say, 100,000 men—might easily be thrown by surprise on our shores, whole Armies of half a million cannot conceivably be ferried across the Channel in a single trip. To begin with, there are not ships

available to carry them. But without some such visible and ever-present menace, as threatens Germany on all sides, we could never develop the spirit of duty in the execution of the day-to-day routine of a conscript Army which alone renders it formidable.

How many people in the British Isles realise that Germany and France owe their security from invasion to the latent threat of their enormous Armies, or that they keep them up to fullest fighting power because they know that the Nation who fails in this respect will inevitably go under?

We are compelled in Britain to seek a more elastic organisation, and in the rough outlines of its form, as it at present exists, I believe we are indeed very near our ideal.

For what are the extreme calls which can be made upon us? If we are at War with a great European coalition, the United States will be bound by their commercial interests (not to speak of sentiment) to be at least benevolently neutral; or should we—which may God forbid—ever be forced to fight the States, Europe will hardly find it to its interests to take part against us actively. If, therefore, we can face the former, the greater includes the less, and in any case it is useless to discuss plans for defeating the whole world. Our statesmen must ensure us against such contingencies.

As against a European coalition (Germany, Russia, and France) our chief danger lies in our ignorance of the mental attitude of our possible enemies with regard to the question of the commencement of hostilities *without* any formal declaration of War.

In theory we consider such an action as ethically indefensible. It is, indeed, contrary to all the traditions of sport, which traditions we inherit from the days when our ancestors sent formal challenges to fight at a fixed time and place, and 'enhazelled' the battlefield as we now mark out a polo or football ground. Foreigners point out that 'ethics' have no more to do with War than with business, 'which in fact it greatly resembles,'[1] and to quote the words of von der Goltz[2]

[1] Clausewitz.

[2] See a special article by this author justifying Kruger's action in the Boer War, published in the *National Review*, 1900.

(one of the acknowledged authorities on strategy which the last half of the nineteenth century produced), 'the statesman who, seeing War inevitable, hesitates to strike is guilty of a crime against his country.' Since this opinion is but the logical outcome of the teachings of the French Revolution, practised by Napoleon and expounded by Clausewitz, with which (since the Franco-German War of 1870–71) every Continental soldier, and hence the majority of the electors of each Nation, has been saturated from earliest childhood, it is clear that in a moment of crisis, whoever the man may be who holds the scales on the other side of the Channel, he will not only be ready to act by inclination, but will be driven to do so by expediency.

Did he fail to do this, and should he miss his chance, it would array against him the whole effective sentiment of his people. This, in my opinion, is the fundamental, the vital danger of our situation. It is quite immaterial whether our Fleet can destroy any possible raiding force that may be sent against us (as I personally believe that it could): the fact has to be faced that across the Channel it is believed that such an attempt has a fair fighting chance of success. No responsible naval or military authority could warn their Government to the contrary without practically admitting their own inadequacy for their respective situations.[1] Hence both personal inclination and political expediency press both soldiers and sailors to make the attempt; finally, whether it be successful or not, the fact of the attempt itself being made must land us in that state of War which it is the end and aim of all our military expenditure to enable us to avoid.

If, then, this is the primary danger we must be prepared to confront, it is clear that naval armaments alone will not suffice to avert it. As already pointed out, it is as easy to bottle up five ships as fifty in any particular harbour, and a watchful enemy is certain to find his chance sooner or later. Only mobile forces on shore can then act as a deterrent, and I have already indicated above the simple steps of redistri-

[1] It is the business of the Chiefs of the fighting forces to be prepared for every contingency, hence if a contingency finds them unprepared, it logically follows that they have failed in their duty.

bution which would suffice to render us reasonably secure as long as our Regular Army is at home.

But that is exactly where it would not be if a serious attempt was about to be made upon us. Diplomacy would have found some means of ensuring that its energies should be sufficiently engaged elsewhere, probably in Afghanistan. A home defence force therefore sufficient to crush any invasion by mere weight of numbers is an absolute necessity of our situation, for on superior skill we cannot afford to count. This narrows the question down to the number of ships which can be concentrated in our enemy's ports within twelve hours without exciting suspicion, and brings us to the greatest and most startling difference between the problem of invasion at present and in the days of the Grand Army. All through the years 1803–5, boats were being built or repaired at every yard on every river and canal leading to the sea, but they could only be delivered at certain points, clearly indicated by the map, which could be, and were, very closely watched by our Fleets. Concentration was only possible when our ships were temporarily unable to keep their stations. The whole Army had also to be kept close at hand in immediate readiness for embarkation, for it was impossible to foretell when the opportunity for action might arise.

Nowadays, steam and the telegraph have entirely modified these conditions. There is literally no limit to the number of vessels which might, by the use of sealed orders, be concentrated along any given stretch of our enemy's coast, except that fixed by the danger of betrayal by crowding the channel with too many ships at once. Sailors have keen eyes, and even if our Channel Squadron happened to be in port with half the crews on short leave, the men in the cross-Channel services would notice anything of an unusual nature in the movements of foreign shipping in time for their recall.

Taking everything into account, I think the limit of foreign vessels of all kinds which could be brought together from Dunkirk to Cherbourg would not suffice for more than 125,000 to 150,000 men, which, as already pointed out in Chapter II., could be put together and railed down to the coast, without exciting attention, within twenty-four hours.

If the enemy, therefore, succeeded in temporarily paralysing, by surprise, one-third of our Fleets in port, the French and German Fleets combined might very well deal with the balance immediately available, sufficiently at least to secure immunity for a flotilla from Emden and the mouth of the Weser and Elbe, and hence we might expect to have to deal with another hundred thousand men, probably on the Yorkshire coast.

There seems to be an extraordinary idea in many men's minds that invading armies would try to land all their men simultaneously at the same place, and that once on shore they would shed all their traditions of the last two centuries, and proceed to behave as if time had ceased to count in strategy. Possibly our own overseas expeditions, not all of them too well managed, have given rise to these misconceptions for which I find no warrant in modern military history.

To the Continental Staff Officer an arm of the sea is an obstacle to be treated as any other. The troops are brought up to it on as broad a front as the network of roads allows. The trains and impedimenta are left behind till the exits from the defiles are cleared on the opposite side. It is the business of the trains to catch up with the troops, not of the troops to wait for these trains. If one landing-place affords only convenient space for 10,000 men, the remainder are directed on to others, and assuming the transports of equal tonnage, the time required depends on the boat accommodation of the ship, not on the number of ships.

When the Prussian Armies crossed the Bohemian Mountains in 1866, and the defiles of the Hardt in 1870, their Advance Guards did not sit down and wait for the baggage waggons to overtake them on the further sides of these obstacles, but pushed on to gain ground and recover touch of the neighbouring columns as fast as they could, and we may be quite sure that they would do the same in our case likewise.

We must, therefore, be prepared to deal with a rapid march inland of two armies of about 100,000 each, moving on a broad front, and hastening their advance by every means

in their power; and if our Staff calculate out the invader's movements at the normal rate of $2\frac{1}{2}$ miles an hour, they are likely to be very severely disappointed.

From my own figures I estimate that on the Southern line we might have to fight for existence within thirty-six hours of a disembarkation, and on the Northern one, *i.e.* from the Yorkshire coast direct on the great manufacturing towns of the West Riding and Lancashire, we should have about fifty hours in which to concentrate on a front running from near Harrogate southward towards Micklefield, which would be as far to the front as it would be safe to go.[1] In both cases we should have to give up all intermediate territory, for against the advance on a broad front we could not hope to hold positions with success, and with such troops as we are likely to have at our disposal we should not dare to risk even a partial defeat. First blood counts for more nowadays than at any previous period.

The drawbacks of a double line of invasion are commonplaces of every elementary strategical text-book, but wireless telegraphy has reduced their danger, and in this special case they are justified by the advantages they obtain; for if we move troops from North to South too soon we uncover the North entirely and cannot countermarch to save it, whilst if and in proportion as we keep troops immobile in the North to meet what may prove only a threat in the South, we deprive ourselves of some of our best fighting material, which has also about the readiest and most direct access to the essential zone of resistance.

To meet the invaders we have in any case about 350,000 men bound to appear under arms at a moment's notice. Even in their present unorganised condition it is quite conceivable that at least 250,000 could be drawn together and grouped under sufficient control to initiate at least a defensive battle, for the orders needed are short and our railways in an emergency, and with all civilian traffic stopped, could easily deal with these numbers. As already pointed out, they handle an equal amount of passenger traffic, with ease, on the occasion of every great race meeting or football match, when

[1] See Appendix No. I.

the goods traffic has to continue without interruption and the crowds under no kind of discipline have to be directed on a certain point, not distributed over an extensive area. Nor would there be any particular difficulty in feeding them, for the food for some days in advance is necessarily within reach somewhere, and there is ample transport in our big cities to ensure its distribution. But, if we had even double the numbers available (and with raw troops against trained ones we should need these odds at least to give us any rational chance of success), in the present state of our tactical training the result could only be the same, for we do not possess on the active list a single General who understands in the least the nature of the strain we should be called upon to endure.

I make this assertion with the very greatest reluctance, and only because I feel deeply that it is a matter of duty to speak the truth. Many of our probable Leaders are my personal friends whose careers I have followed with the closest interest, but they are public characters also, and cannot escape either the consequences of their own acts or the influence of their training and surroundings; and judging by the orders they have issued, the speeches they have made and the books they have recommended for study, I am convinced that the true psychology of the problem of the 'battle' as understood and taught in all Continental Armies has entirely escaped them.

A man who speaks a foreign language fluently can readily detect mistakes made by men of much superior ability who do not happen to possess his advantages, and to do so in a matter of importance does not argue undue conceit on his part. The present is an exact parallel. I happen, by a series of accidents, to have become initiated into these military foreign secrets. The fact has been vouched for by high authority, both in Berlin and Paris, and I feel compelled to warn my countrymen against their impending danger.

We are aware, in a vague and general manner, that many things are wanting towards true efficiency, and we have been deluged with proposals, responsible and otherwise, for reconstruction and reorganisation, but none of them, however

excellent on paper, can avail us at present, until the whole spirit of our military education has undergone radical revolution, a process which must take several years, and may take many. But the sooner we begin, the sooner it will be over.

To the details of this revolution I shall recur hereafter. Meanwhile, there is one and only one sheet anchor on which we can pin our hopes, viz. *numbers*, and to show what those numbers are, where to look for them, and how to organise them, forms the next step in my argument.

I have indicated above (Chapter IV.) the origin and progress of our Auxiliary Forces. The Crimea and Mutiny reanimated the Militia and laid the seeds from which sprang the Volunteers, the two together rendering Short Service possible by bridging the gaps between the Army and the people, and thus popularising the conception of duty to the State.

All three together give us a total of men more or less trained and sworn to turn out at a moment's notice of some half a million.[1] This is the visible output of our military machine; but what has become of what, for want of a better expression, I must call the by-products of the process?

The accompanying diagrams (I., II., and III.) will enable us to answer this question. No. 1 gives the total number of recruits enlisted into the Regular Army from 1830 to 1900;[2] and, assuming that the average age at enlistment is eighteen, and the limit of useful age for home defence is sixty-five, then by adding together the numbers annually enlisted from 1853, and deducting the sum of the annual wastage from death and disease, we get the total number of trained soldiers of the Regular Army still available to bear arms in a great emergency.

Let us classify these according to the principle generally

[1] Regulars in the United Kingdom, 1907, 180,000; Reserves, 110,000; Militia, 100,000; Volunteers, 250,000; total = 640,000 men.

[2] I have not continued the diagrams beyond 1900, because the constant breaches of continuity in our terms of enlistment render later figures useless for my purpose.

accepted in Continental Armies, viz.: 17 to 20 as recruits; 20 to 27, Regular Army; 27 to 32, First Reserve; 32 to 45, Second Reserve; 45 to 65, Third Reserve (equivalent to the old German Landsturm). This gives us a grand total of, in round numbers, 3,200,000, age for age the equals in every way of anything they can be called upon to encounter on the Continent, and over more than 2,000,000 of whom (this is the really astounding point) we possess no legal hold whatever. What possible reason can there be why a trained British soldier, say, of 45 years of age, and with seven years' Colour service all over the globe, should be considered unfitted to meet, say, a Frenchman of the same age who has only done three years with the Colours and four or five short annual trainings? My first idea, many years ago, was that these men should be organised with skeleton cadres, and the Volunteers and Militia abolished altogether. That was whilst I was still in the Regular Army, and before I had learnt to appreciate the Auxiliary Forces. They certainly would make magnificent battalions, as indeed they did when the Royal Reserve Regiments were formed in 1900. As I saw a Brigade of them sweep by at the Queen's Birthday Parade at Portsmouth, I instinctively understood what Ulysses S. Grant meant when, at a great review at Gibraltar, held in his honour in 1866, he turned to his Aide and exclaimed, 'These men march with the swing of conquest in their stride.' Even what I have called the Third Reserve (45 to 65) would be formidable opponents, as all who can remember the annual inspections of the old pensioners, which continued till about 1873, will confirm. But that would be by no means the most economical or effective means of utilising their services, as I shall presently show, and, moreover, would deplete the very life-blood of our whole organisation.

To take the last point first. We are a constitutional Monarchy ruled ultimately by votes. If the whole burden of personal service is taken off the shoulders of the people and transferred to a separate 'caste,' then the more efficient that 'caste' appears to be, the less interest the rest of the community will take in the question of defence, for the reason that defence no longer concerns them individually.

Our existing system itself has grown as a consequence of the widespread conviction that our visible means of defence were altogether inadequate to our needs. Had the whole of our resources been revealed, this conviction would presently have died away, and the Volunteers having ceased to exist, or never having come into being, there would have been no body of public opinion strong enough to insist on the provision of proper equipment, armament, etc., and the Army first, and afterwards the Navy, would have become the helpless playthings of political parties. That things have been bad enough we all know, but if the country in the past thirty years had seen too much of its potential defenders, it would have been many times worse.

I have admitted that the troops we might thus have formed would have been magnificent in appearance, but the essence of the whole matter is that they could not long have maintained their efficiency for reasons I have set out at length in Chapter IV.

It can never be sufficiently insisted on that the responsibility of teaching is the very mainspring of progress in all peace-trained armies. We have short memories nowadays, and people forget what the old British subalterns of forty to thirty years ago really were. I hesitate to repeat the old stories of captains being coached by their sergeants in the words of command on ordinary battalion parades. Personally, I can recall nothing of the kind. But I can vouch for it that as late as the early eighties I have been several times asked by Line officers of upwards of ten years' standing to help them out with the executive word of command necessary to carry out the order I had been charged to convey, and I do not hesitate to assert that the average Company Officer of Volunteers nowadays, as I know him, is fully equal in technical knowledge to the home-trained Infantry subaltern of thirty years ago, yet even *he* was generally good enough to lead his men under the normal conditions of a European battlefield.

What both the Volunteers and the Militia really require to fit them for the field is intimate association with older and experienced war-trained men, if possible; if not, then at any

rate with men in whom the spirit of discipline has become ingrained, and who have done their fair share of roughing it. Battalions formed with 20 to 25 per cent. of old regular soldiers, 20 per cent. of the young recruit class, and the remainder either of ex-Volunteers or Militia men (not both), would with a month's training be fit to encounter almost anything the Continent could bring against us.

To the details of such an organisation I shall recur later. Meanwhile it will be sufficient to note that beyond the payment of a very small retaining fee—just enough to make it worth the men's while to apply for it half-yearly, so that their whereabouts and condition should not be lost sight of—we should obtain an immediate reinforcement of about half a million of these trained men who are still available in the country somewhere.[1] I would recommend no legal obligation upon them of any kind. For they, like all the rest of us, when the time comes, will be under the sternest law of compulsion the world admits, viz. starvation for themselves and their families.

Turning now to Diagram II., and computing the numbers of Volunteers, Militia, and Yeomanry available by the same method, we arrive at the very considerable total of 385,000 with the Colours and 1,500,000 passed through the ranks, men with an average service of four years; and though the total hours spent on parade in any of the three services is hardly more than a regular recruit puts in in six weeks, it must be remembered that in the training of the soldier, considered as a whole, it is the period of association with the corporate body which is really of the greatest importance—*e.g.* a body of old Etonians, say, with only an hour's instruction in the use of arms would be of considerably greater fighting value as a whole, than an equal number of trained soldiers chosen by twos and threes from every battalion in the service.

In this first estimate of the trained men available we must not overlook the ex-bluejackets, no longer fit for service in a modern battleship, but absolutely invaluable elements

[1] See W. O., December 1897; there were then 407,734 ex-soldiers in the country. These numbers have since increased.

where any fighting has to be done. These number approximately 125,000, and bring the grand total to the not inconsiderable figure quoted above—in round numbers, 3,000,000 more or less trained men.

If even half that number can be made fit for an emergency, the prospect of the invaders would seem to me but small indeed.

It must be borne in mind that these numbers are, and can be, only an approximation. There are all kinds of sources of error which it is impossible for anyone single-handed to trace in detail. Men pass from the Volunteers and Militia into the Army, and *vice versâ*; many go to the Colonies, where, however, they still remain available units of our fighting strength. Thousands desert, and are discharged with ignominy. But roughly that number must be alive amongst us somewhere, and in a great crisis we shall not be very strict in inquiring into a man's antecedents, or about his chest measurement.

What we shall chiefly need will be previous training and good will, and under the wave of patriotism which will rise, for invasion *must* produce it, I firmly believe our difficulties will not be to *get* the numbers, but to make the necessary selection from the numbers who will offer themselves.

The truth is that the men who believe that legal compulsion will be necessary at such a moment have never studied the psychology which controls popular outbursts under these conditions, or in so far as they may have approached the subject, they have failed to differentiate between the evolutionary history of our own race and those of the European Continent.

As I have already pointed out, before the French Revolution the idea of nationality had hardly seen the light on the Continent, whereas with us it seems already to have become innate and traditional in the days of the Tudors. We know the consequences which followed upon its first awakening, both in France and Germany, in the years from 1792 to 1815; but we have only a faint indication of what it would have been in our own case, because we never sent a truly representative army into the field. The Duke of Wellington has left

us his opinion of the men he commanded at Waterloo, and it was none too favourable; but the instinct of the race asserted itself at the climax of the fight and imparted to our men that cohesion and endurance which at the time won us the respect and admiration of all other Nations.

I know no more significant passage in any military writer than that in which Gen. Sir J. Michell, an artilleryman and old Peninsular veteran, describes the bearing of the men during this stupendous struggle.[1] And if this most unrepresentative Army could thus instinctively feel the nature of the crisis and nobly rise to the occasion, can there be any reasonable doubt as to the conduct of our new National Army, in which all elements are represented, when the right impulse is transmitted by the tremendous means which science has placed at our disposal for gathering, directing, and swaying a crowd?

The Kruger telegram incident was to me the first indication of these possibilities, and the astounding reply of the country to the news of our misfortunes in South Africa four years later served only to confirm my first impressions.

Of the genuineness of the feeling evoked there can be no doubt whatever. It was absolutely unreasoned and purely instinctive, but the instinct held true, and the men never flinched from their contract even though ample time was allowed and some pressure put upon them to induce them to withdraw. In my own battalion of Engineers out of 400 men 105 came forward at once. I spoke to them and warned them that the contract they proposed was a serious one which excitement alone would not suffice to carry through, and sent them all home to reflect upon the matter; but only five yielded to family pressure, and when the twenty-five fortunate

[1] Extract from Michell's *Modern Tactics*: 'There was plenty of despondency and want of confidence (as to results) in the Army on the evening of the battle of Waterloo; but it never shook the resolution of the men. On the contrary, it brought on that stubborn and resolved kind of fierceness that after any desperate and prolonged resistance seizes on the minds of British soldiers and makes them callous to all but the desire of destroying their enemies. On ordinary occasions, when soldiers assist their wounded officers or comrades to the rear, they return—when they do return at all—leisurely enough; but at Waterloo many of them refused to quit the ranks, and others actually left wounded officers in the middle of the road and then returned to their posts.'

ones had duly passed the doctor, the disappointment of the remainder was evident beyond a doubt.

The exact number of men who came forward has never been accurately ascertained, but the Institute of Volunteer C.O.'s published figures accounting for 80,000, and in the Militia and Yeomanry the proportion was at least equally good. If the racial instinct was strong enough to detect the danger to the Empire which then loomed only faintly in the distance, so faintly that I never was able by reason to convince myself of it at all, can there be any doubt as to the response which the pressure of an actual enemy on our own shores would evoke ?

That the second call for Volunteers did not meet with an equally enthusiastic reception is hardly to be wondered at, for the bottom had been knocked out of the whole affair; it was quite evident to everybody that time alone would suffice to settle the matter. To me the marvel is that any men at all should have been found loyal enough to their comrades to go out to their relief. We who have been trained, at public schools and as officers, to realise our essential solidarity as a race, hardly allow enough for the influences of their surroundings on men involved in the daily struggle for existence ; and I confess it was more the second draft from the Volunteers that converted me from the pessimism to which a study of the doings of the old Manchester School had inclined me, and made me admit to myself that even the Board Schools might not be such bad nurseries for duty and patriotism as I had previously supposed.

For what had these men to gain by their sacrifice, and what were the risks they faced ? They were hardly in a condition to weigh War risks with the coolness of Insurance Office Actuaries, but saw them rather through the somewhat lurid lenses of the daily press, and quite enough wounded and invalided men had returned to serve as object lessons. But behind all these loomed the risk of loss of situation; and only those who have realised what starvation in the streets of a great city really means can justly appreciate what awful misery that may entail. That many undesirables also found their way into the ranks lured by motives the reverse of

admirable I am well aware, but I venture to think that the country has not yet appreciated at its true worth the object lesson the second drafts afforded, and I own that it is to them that I owe my final emancipation from my leanings towards compulsion.

If it be argued that the response was small in proportion to the total available, my reply is that the cause was infinitesimal, at least in its appeal to reason, and effect must bear some proportion to cause. Given a great cause, War for instance, let us say, on the frontier of Afghanistan, with trade at a standstill, and the inference would be obvious even to the man in the street that only a rapid decision could end the sufferings of the people at home. It is the visible not the invisible results that tell most in a crisis, and I feel no longer the slightest doubt that in such an emergency [1] our ranks would fill with trained men from our almost illimitable reservoir, and as in Cromwell's time we should soon evolve an Army with the same cohesion and spirit which rendered his Ironsides immortal.

But to explain the reasons for the faith that is in me needs a further investigation into the psychology of the drill-ground.

[1] Defeat always has filled our ranks more rapidly than success. When the doubtful news of Ferozshah in 1846 shook the confidence of the nation, the recruiting lists at once made a bound upward. It was the same during the Crimea and after the first news of the Mutiny. The destruction of the 24th at Isandlwhana and of the 66th at Maiwand made recruiting in their respective districts phenomenal.

CHAPTER XII

THE PSYCHOLOGY OF THE DRILL-GROUND TRAINING

Whenever a great War breaks out and the consequences of the first engagements begin to be realised—nowadays this happens within a very few hours—an hysterical outcry arises amongst the junior ranks, and particularly from their civilian relations, denouncing the wicked pedantry and crass imbecility of their Colonels and Generals in having wasted the valuable years given for preparation in senseless ceremonial and antiquated drill. Henceforward, it is always prophesied, all these relics of a mediæval chivalry will have to be abolished, the colours and all other cherished insignia of the past be relegated to archæological lumber rooms, and the time and energy of the free and independent manhood of the race be devoted only to target shooting, taking cover and similar practical training. But—and it is generally a very big But—scarcely has the smoke and confusion of the battlefields cleared away, sometimes even before the War is over, and we are all back again at the same old routine, and the men who have seen and felt the responsibility of command, in the highest degree, are generally, if not always, the staunchest upholders of the most iron drill-ground discipline.

It was so after Mollwitz, and the Prussians never forgot that lesson for the next half-century. It was so after Valmy, but in six months' time the French were drilling in close order for all they were worth. In 1871, before Paris had fallen, the Germans were drilling in their spare hours with redoubled intensity; and even as lately as in 1902 we were again at the same old work, only with this difference, that nowadays we move quicker and with greater smartness, exacting far more exertion from the men than, in my experience,

we ever did before. Where a phenomenon thus repeats itself time and again, in spite of the most complete change in apparent surroundings, there is evidently a strong *primâ facie* presumption that it is governed by some law and is capable under scientific investigation of some better justification than 'the hereditary imbecility of Commanding Officers' by which it is the popular custom to explain it.

Which is likely to be the better judge, the outraged parent forwarding, with comments, the letter from his brilliant son (they all become brilliant as soon as they reach the front), the editor in his comfortable armchair digesting the evidence he receives from his special representatives in the field, and the contents of his letter-bag generally, or the responsible Commanders before the enemy, whose life, honour, and reputation depend on their men, and whose whole happiness for years previously has often been bound up in their welfare?

To the best of my knowledge this problem has never received the attention it deserves, partly on account of its intrinsic difficulty, chiefly because it is only very recently that science has supplied us with anything in the nature of a working analogy which can help to make its explanation comprehensible to all and sundry.

Drill, and all it implies, has been with us from the earliest civilisations, and it has been found by experiment that the best-drilled troops have always proved able to stand heavier punishment without losing their order than those less well trained. They have often indeed suffered defeat taken together as an army, but that has been due to the want of skill shown in the employment of their several units, or to other causes outside the sphere of their own activity. Locally a well-drilled body has always justified the time and trouble spent on its preparation.

The methods in use for inculcating this drill have varied in different times and places, according to the temperament of the race, to its intelligence, inherent spirit of self-sacrifice, and other conditions; but in the main, by purely empiric practice, each race has evolved the system best suited to its own conditions, and this practical unanimity (for essentially

all drills are alike, however much they may differ in details) could hardly have been reached unless the dangers it is intended to mitigate were also everywhere of a similar nature.

'What are these dangers?' is the next question, and the answer is, 'The influence of the fear of death and mutilation on the human being, which will vary with every individual, with his mental state from day to day and from hour to hour, with his breeding, his nationality, and, above all, with the form in which the terror of death confronts him.' It was not until, by the use of firearms, projectiles assumed decisive importance that the subject began to develop its present complexity, for, as the late Colonel Ardant du Picq[1] (of the French Army) has so ably pointed out, in the days of the short sword of the Roman soldiers the actual strain of the fighting fell only on the foremost ranks. To these the excitement of combat was in itself the best anæsthetic, and the expectant ranks in rear were borne up by their confidence in their individual skill in the use of their arms, and trust in the prowess of their neighbours. Death could not fall on them suddenly from the clouds, but could come only as the result of hard fighting. What happened in the days of the long bow, the most terrible engine of death the battlefield[2] has ever seen, it seems now impossible to ascertain. It appears, however, that no Nation succeeded in solving the problem of making men stand up to it, and other methods had to be devised to neutralise its powers. It is only when firearms came into general use on both sides that sufficient evidence, as a groundwork, begins to become available.

But we can note, in passing, how tremendously the strain of this 'death from a distance' began to be felt from the very beginning; for the popular voice was quick to realise the all-importance that musketry fire appeared to have acquired in the field.

'In the old Warres and before Fire was got to that height

[1] *Etudes sur le Combat Antique*, Colonel Ardant du Picq. Paris: Chapelot et Cie.

[2] The losses due to the long bow, reduced to time percentages, were much heavier than on any recent battlefields.

of excellence to which it is now arrived. . . . But to come to these our present times wherein the uttermost strength of the Fire is found out.' This sounds like a quotation from current literature, but it is taken from the 'Souldiers Accidence,' published in 1643. Yet the responsible leaders were so little converted to the popular view that it took nearly two centuries to abolish the pike altogether, and even as late as 1830 we find an old Peninsular veteran urging its reintroduction.

It is in the history of the Prussian Army that we can trace best the evolution of our present system, for by the nature of its surroundings that nation has been compelled to devote closer attention to its fighting power than have any of its neighbours.

Poor, surrounded by enemies on all sides, and compelled by its poverty to expansion, from the first it has had to exact more from its fighting men than has any other Kingdom. It was during the first half of the eighteenth century that the initial changes were worked out which have since involved the civilised world in their consequences. Her Generals were the first to realise that, though it was the final charge with cold steel which alone decided the victory, the success of that charge depended essentially on 'fire preparation'; in other words, on the weight of metal a given front of men could pour in upon the enemy in a given time, a fact that we had discovered at sea nearly half a century earlier, but the bearing of which on land we hardly appreciate as yet two centuries later.

To obtain this result they strove to place as many men in line against the enemy as could use their muskets to advantage; and since the greater the skill of the men in loading, the closer together they could be placed, and greater skill also implied greater rapidity of fire, they drilled them at loading and firing until a degree of excellence was obtained which it is nowadays almost impossible to credit. The climax was reached when about the year 1735 Leopold von Dessau (der alte Dessauer) introduced the cylindrical iron ramrod which, by its greater weight, enabled the charge to be driven home by a single stroke; and the conical boring of the touch-hole

which ensured that the powder penetrated with certainty to the flash-pan, gave a further appreciable saving of time. Seven rounds a minute[1] per man appears to have been the normal standard, though in individual cases even this was exceeded.

It now appears evident that as against any other Infantry of the period, whose rate of fire hardly exceeded three rounds a minute, the Prussians were bound to sweep away everything they might encounter, provided only this tremendous fire-machine could be brought within effective range of their opponents. But this implied not only the power of marching across country without loss of order from the inequalities and obstacles of the ground, but also the discipline needed to make good all losses inflicted upon it by the enemy's fire during its advance.

The whole problem was identical in principle with the one which confronts us at present, and doubtless always will present itself as long as men's bodies remain vulnerable to bullets. To open fire at relatively long ranges, whilst it diminished the difficulties of execution of the advance, reduced enormously the percentage of hits; and to attempt to press in too close before opening fire meant heavy losses, *i.e.* fewer muskets available, and possible extermination by a lucky volley before a single volley could be fired in reply.

Frederick the Great grasped the whole doctrine of fire-power as clearly as any of the most modern school, and, in his earlier instructions for his Infantry, he endeavoured to solve the difficulty by prescribing that the battalions shall advance without firing to about 200 paces from the enemy, at which distance he lays down that a couple of volleys will suffice to scatter them. But he soon found that he had forgotten to allow for human nature in this calculation, and presently we find him complaining to his Major-Generals that their subordinates seem very bad judges of distance; for though he has issued orders that fire is not to be opened until about 200 paces, he has frequently seen them in action firing at

[1] See *Sir John Moore's Diary*, also *Pruss. Official History of First Silesian War* and *Kriegsgeschichtliche Einzelschriften*, part 28, for a full investigation of this point.

600, which involved a useless expenditure of ammunition, and must be put a stop to at once.

Ultimately, however, he had to bow to the inevitable and recognise that, in spite of all that drill could do, the opening of fire could not be controlled by regulations, and in his later instructions he writes :

'Those generals will recommend themselves most who attack the enemy with shouldered arms.'[1]

In other words, this is only Suvaroff's maxim anticipated, 'The bullet is a fool, the bayonet a hero'; and ever since then the best of all Infantry Generals have adhered to it as the expression of the true spirit of the Infantry assault, exciting thereby the contemptuous indignation of all civilian critics and reformers generally, who fail to perceive the esoteric meaning behind the phrase.

What it really signifies is this. On the battlefield human nature overrides all regulations. As the advance continues and men begin to fall with ever-increasing rapidity, a point is reached beyond which all order and control ceases and the men halt and fire in self-defence. The art of the Leader consists in recognising the approach of the inevitable and ordering the halt and fire at the last moment before his men escape his control. And the more perfect the previous preparation on the drill-ground, the closer the fighting machine can be brought to the enemy before commencing its work. Since the chance of hitting the enemy increases far more rapidly as the distance diminishes than the rapidity with which your own men fall, it is hardly possible to get too close to him before beginning a return fire.

Further, whereas every superior Officer knows that the first line alone can never carry a position, but that the final

[1] 'Es musz den Leuten wohl imprimiret werden, dasz wenn der Feind wider Vermuthen stehen bleiben sollte, ihr sicherster und gewissester Vortheil wäre, mit gefälltem Bayonet in selbigen hereinzudrängen. Alsdann der König davor repondiret dasz keiner wieder stichen wird.'—*Prussian Infantry Regulations*, 1743.

'Wenn die Bataille wirklich angehet so werden sich diejenigen Generale am meisten recommandiren die dem Feind mit geschulterten Gewehre attaquiren.'—*Instruktion für die General Majors von der Infanterie*, August 14, 1748.

effort comes from the second line or even the Reserves, as a matter of principle it is not wise to teach the troops that, if in the first line, they are not to rely on themselves but on somebody else. This would be the mistake of Frederick the Great's order over again. Troops must be taught to rely upon and obey their superior Officer, for he alone is in a position, by reason of his presumably greater experience and the facility his position gives him of overlooking the whole situation, to decide as to what is practical or what is not.

This was once the fundamental principle of all drill-books, which contained no tactical teaching at all. The Leaders being essentially War trained, it was considered that they were the best judges of what the situation demanded, and if they gave an order it was to be implicitly obeyed, simply because no one else could be in a position to criticise it. Unfortunately for the Army, the era of chronic War was suddenly interrupted, and in course of time troops became entrusted to worn-out peace-time veterans, who commanded neither the confidence of their men nor of their superiors, and to meet the difficulty (because these old men would not study their profession) tactical instructions were added to the drill regulations, which step practically placed the men in judgment on their superiors and allowed them to criticise, with their necessarily imperfect information, the orders they received before the enemy.

A single instance will suffice to show how this may work. A Divisional General, with his troops drawn up in readiness, receives orders to attack a formidable entrenched position at once, because his superior has suddenly, from his own standpoint, discovered that the enemy is evacuating this position in disorder, and that fresh troops are being brought up to save the situation. Not an instant is to be lost, and there is no time for the preparation of tactical appreciations. The Divisional General and his troops, sheltered behind some roll of the ground, know nothing of the general situation and obey. Suddenly, as they reach the crest of some intervening ridge, the whole apparent magnitude of the task set them dawns upon them. They cannot know what the man who gave the order saw and appreciated. All

they can realise is that they are being set a task that every book and prescription lays down to be impossible, and with what spirit will they obey? Military history supplies the answer. A half-hearted dawdling advance, time wasted in firing at where the enemy might once have been, then the appearance of fresh reinforcements, finally a long and desperate struggle, costing thousands of lives where perhaps a hundred would have sufficed, and jeopardising the success of the whole Army. Or the impetuosity of the troops may entail equally serious dangers. A preliminary change of position may be necessary, but the men exceed their orders, a premature fight is brought on, others become involved in its consequences, the hand of the Leader is forced, and a desperate battle may arise out of what was originally intended merely as a precautionary measure.[1]

The safeguard against these and similar dangers the Leaders formerly found in rigid drill, and if, at times, their methods nowadays seem open to question, it is only fair to consider the special circumstances of the times, and the nature of the material they had to deal with.

Absolute discipline could only be attained by the exercise of the Commander's powers of punishment. These were, for the most part, of a most cruel description, and it is the general custom to hold the Commanders responsible for their severity. This, however, is merely a popular superstition. It was the men themselves who invented these special forms of torture, and a digression is needed to show how this originated.

In the period which elapsed between the decay of the old feudal system and the institution of standing armies, the fighting men of the day were trained specialists at their work under the control of a recognised ganger or foreman, precisely as are gangs of navvies nowadays. Sovereigns or potentates needing their services contracted with the 'ganger,' who alone was responsible for the execution of the work contracted for. But this work involved special dangers of its own, due to possible negligence on the part of individual members of

[1] The Franco-German War bristles with such instances: Spicheren, Woerth, Borny, Mons-la-Tour, etc.

the gang, of which the ordinary law could take no cognisance, or, at any rate, could not punish with the severity and the promptitude which the situation demanded. Hence, in self-protection, the men bound themselves by a code of their own, which was especially severe 'on cowardice,' 'sleeping on one's post,' and in fact on any act by which a man either endangered his comrades or brought their association into contempt and disrepute, and they claimed the right of being tried and punished by the members of their gang and by no others, a right which it was very expedient to grant them.[1]

Ultimately, as the gangs increased their numbers and danger lessened, as with the trade unions and similar associations, the code became too Draconic for the altered circumstances. The public conscience was revolted, and at length an attempt was made to codify the punishments, and to place their administration in the hands of Officers who had no direct interest in the verdict, and might be expected to secure uniformity of judgment and some measure of fair play to the wretched culprits. This was the origin of the 'Articles of War and Courts Martial' all over Europe, and these certainly did, by degrees, exercise a humanising influence over military punishments. But they failed to keep pace with the growing and very necessary humanitarianism of the race, because once codified they could not readily be altered, and the punishments being decreed by men no longer necessarily in direct contact with comrades of the culprit, these could not resent the sentence by shooting the unpopular Officer in the back. Under the old system the Commanding Officer, generally known as the 'Company father,' had to exercise tact and discretion in the administration of the powers the men themselves had entrusted to him, for the men had always arms in their hands, and it did not pay to drive these fighting specialists, quite fearless of their lives, to extremes. As long as he exercised discretion the bulk of the unit was on his side, and the men settled the matter amongst themselves, or deserted and joined a more popular leader. But under the Code the case was tried by comparative strangers, and the opportunity for revenge rarely, if ever, came. Hence punishments

[1] See Max. Jähns in his *Geschichte der Kriegswissenschaften.*

again tended to become excessive ; and this being the custom, as the necessity for stricter drill training became apparent, it was natural for Officers, held responsible (most mercilessly, as in Prussia) for the efficiency of their Commands, to utilise to the utmost the powers conferred upon them, and it was from this abuse that the traditional hatred of the drill-ground really arose. It must, however, be pointed out in extenuation that the horrors, especially of the Prussian system, have been grossly exaggerated, and neither in that country nor in any other was the Code more severe than local circumstances justified and the common sense of the majority accepted as necessary ; for had the men been such slaves as it was the custom of the time to represent them, they would not have shown, in action, the loyalty and heroism vouched for not only by their pen-and-ink records, but by the terrible casualty rolls of the great battles in which they bore a part.

It will be remembered that reform of all disciplinary measures in the French Army was one of the first tasks to which the early Revolutionary Government addressed themselves, and that, as a consequence, all degrading punishments were struck out of their Military Code. But the new regulations proved impracticable in the field, and presently the men themselves took the law into their own hands and invented new punishments as soon as by experience they had found out the consequences which might accrue to themselves from individual negligence. These new punishments proved equally unpopular to their recipients, as a comparison of the desertion amongst the young soldiers, during Peace, in the Armies of the Consulate, and those in the British and Prussian Services at the same date, will show.

The point that it is essential to note for my further argument is the law of adaptability which invariably asserts itself where men are united in groups for services which involve risks of their own for the community, which the ordinary law cannot reach with sufficient vigour and promptitude. This will be shown to be all-important when we come to deal with the question of the maintenance of discipline in a Volunteer Army in the field.

Further, the nature of the raw material to be handled

must be borne in mind, and the value of the finished article contrasted therewith, before we condemn the methods sanctioned by experienced men of action in times of imminent danger and risk. The Prussian yokel, of two centuries ago, was but little removed from the primitive savage in his comprehension of the restraints and conventions which must be observed amongst crowds who are compelled to live together, and the case was further complicated by the presence in the ranks of the foreign mercenaries ('die Ausländer'), recruited or kidnapped chiefly from the scum of all Europe. Contemporary evidence shows that the officers did their best to guard the young 'Landeskind' from contamination by their foreign comrades, but the former were guilelessly stupid, and could only be made to understand what was required of them by very drastic examples. Practically the same intermixture of foreign and home material takes place on our tramp steamers nowadays, and with somewhat similar results; but, hard as the school undoubtedly is, those who have been through it admit both its necessity and its inevitableness.

I lay special stress on the genesis of the punishment Code in the Prussian Army, because it has often seemed to me that our forefathers may be rightly reproached for adapting Prussian methods to British troops with apparently very little intelligence; but when we recall how drafts were made up for the Peninsular Army, and the appalling atrocities our men showed themselves capable of at the sack of Ciudad Rodrigo and Badajoz,[1] one can hardly wonder at the scale of punishments which became common, and were perpetuated by tradition almost to the commencement of our own generation.

Popular prejudice is always some two complete generations behind the facts, and I am convinced that much of the unpopularity under which the Army still suffers amongst a certain class of the people, is based on no better evidence than hearsay recollections of things that happened more than half a century ago.

[1] It is only fair to their memories to recall that the callous brutality the Spaniards had shown both to our own and particularly the French wounded had maddened our men beyond control.

Setting aside, however, all details of the punishment Code, we find, when we examine the methods of drill introduced into all Armies, in order to vie with the terrible firepower of the Prussians, that all alike agree in retaining three essentials, viz. absolute silence in the ranks; the rigid position of attention, in which all faculties are strained and the body poised so as to ensure instantaneous obedience to the word of command; and thirdly, the execution of the command itself with the utmost energy of the will and of the muscles involved. These three principles, duly inculcated during a term of months, rendered men of the most widely different nationalities capable of executing collective deeds of heroism far transcending that of which any one individual of the group would have been capable alone. And this heroism could be relied on uniformly under the most diverse conditions—whether of shipwreck, or of fire, in the excitement of battle, or under the depressing surroundings of a daybreak attack or surprise.

Normally, any fortuitous assemblage of individuals, a crowd, in fact, has earned the reputation of being the most cowardly thing conceivable. Though this position is not altogether tenable, it is undoubtedly the fact that a crowd is most unstable, and under the influence of panic (which requires numbers to generate it, and will vary in its magnitude almost as these numbers increase) men will commit acts of almost unimaginable poltroonery. Consequently one is almost forced into the inquiry why of two bodies of men, differing only in the fact that one has been taught to spring to attention smartly and shoulder arms together, and the other has not—the conduct of the one should be absolutely predictable beforehand, and that of the other seems to be a mere matter of chance emotions.

I was first led to approach it by the recollection of the influence that the battalion with which I was first trained exercised on me when in the ranks, and the feeling I experienced, some few years later, when I returned to it after short service had begun to affect its solidity. Then it was that when I in my turn began to drill the battalion, or other units, I became gradually aware of a change in the

effect of the men upon me when myself responsible for their movements.

I found (doubtless hundreds of others have done so before me) that this varied, not with my knowledge of the drill, but absolutely with the state of my health; as for a long time I had fever at least once a fortnight, my opportunities were sufficiently frequent. If I was feeling fit and strong, I drilled the battalion; when I was ill, the battalion drilled me. I can recall the sensation, as if it had happened but yesterday, how, when nearing a given point at which it was usual for the battalion to change direction, I would determine to march them straight on, and thus assert the existence of my own independent will. Then, as we neared the critical moment, the expectation of the thousand men that they were again going to do exactly what they always had done a hundred times before, simply forced itself upon me, and my voice gave the familiar 'Column, left wheel,' against my determination.

I realised then that I was being hypnotised, and studied others, to find that a very large proportion suffered exactly as I was doing. As, by degrees, I shook off the attacks of fever, I determined on a new plan for asserting my own power over the men and keeping them in hand under all conditions. Either with a fresh body of troops, or when I felt routine getting the better of me, I made a practice of ordering some wholly unexpected movement and carefully watching its effect. It generally acted like waking a patient from an hypnotic sleep. The confusion which ensued for a moment would be quite ludicrous, but when order had been restored, and I had addressed a few remarks, especially selected, to drive home the lesson, that body of men were rarely disconcerted any more, and after a very few like experiments I felt that I had them absolutely in my hand.

Then I was moved away from immediate contact with the men and other work absorbed my attention. Ideas were floating vaguely in my mind as to what my experience really signified, but I was unable to find any guiding line to follow. Generally I had the satisfaction of knowing that I could really command men, and was also susceptible to

the influence of their collective will. That is to say, I never required to look round in order to find out whether I had the good will of the men behind me or not. This is a difficult thing to explain to a civilian, but every man who has ever commanded a battalion, even at an ordinary Inspection, will understand what I mean. The knowledge of this power led me to notice the influence of actors over an audience, and preachers on a congregation, and I soon became convinced of the close connection uniting all these several phenomena. As I had meanwhile had some experience in lecturing and public speaking, I could appreciate the standpoint of the actor or clergyman myself.

My final lesson, however, came to me from my present Volunteer Battalion, and as this at length enabled me to throw my ideas into some kind of form, I refer to it again at some length. The Volunteers, as they stand on parade, bring very great keenness and good will to their task. This is evident, because they would not attend if they did not wish to do so. But they have not, as a body, the habit of concentrated attention which trained soldiers have acquired, and the consequences are very peculiar.

For the first twenty minutes or half-hour all goes well. Then attention begins to waver. They can no longer keep their heads steady, and the least little disturbance of their regular routine causes them all to look about them. After three-quarters of an hour of exacting drill they become absolutely confused, and are individually capable of the most astounding mistakes.

The effect of this on their Instructor is absolutely exhausting, and after an hour of it I have come back as mentally weary as I have sometimes been after writing a newspaper article of 1,200 words on an uncongenial topic against time—certainly the hardest work of any that I know.

The result, taken in connection with all that I had read and thought on 'discipline,' was to convince me that the true object of the drill-ground was the training of the will, not of the body. I put forward this suggestion on several occasions before the United Service Institution and in my various tactical books and studies. But its significance found little

response, for the soldiers to whom I appealed were not psychologists, and the psychologists were not soldiers enough to appreciate its full bearing on the problems of training and of command.

Within the last two years, however, I have made the acquaintance of the works of M. Gustav le Bon, in which he has given a full and exhaustive study of the Psychology of Crowds and of Socialism. From these I have received a perfect flood of illuminations. Briefly, he shows the relative influence of acquired race characteristics, and of intellectual reasoning in determining the action of a mob. By historical analysis he shows that this action need not necessarily be either cruel, cowardly, or heroic in any particular instance, but is determined at the psychological moment by the dominant instinct which I have always termed the 'collective will-power' of its constituent units, and the action of this 'will-power' on the conduct of individuals.

It is not always the most heroic, or the most demoralised, who set the example of courage or brutality which the rest afterwards follow. This is effected by those who are the most susceptible to suggestion, and who are in their normal condition often the very last persons from whom such exhibitions might be expected. They themselves, after the excitement is over, find it quite impossible to account for their own actions.

Some of the men who were the most odious by reason of their ferocity during the French Revolution, relapsed afterwards into the same peaceful and innocuous citizens they had been before the Terror, remaining thereafter quite unable to explain their temporary aberration. Probably most of us can recall cases of men who, after some most conspicuous act of gallantry in the field (which, by the way, none of their comrades had ever anticipated), reverted to their normal insignificance, or proved quite incapable of bearing the responsibility of Command which their unexpected bravery had prematurely conferred upon them. It explains also the extraordinary difference in the quality of valour displayed by troops trained to different standards. Napoleon said of his own soldiers that 'the French Army possessed more men capable

of conspicuously gallant conduct than any other army in the world, but that the British had more men ready to die for duty'—and he attributed this to a fundamental distinction in the two races. Of the truth of his observation history leaves us in no doubt whatever. The astounding thing about the whole of the records of the Revolutionary and Napoleonic Armies is the extraordinary heroism displayed by individuals under the eyes of their comrades. Again and again surprises were effected, bridges[1] broken down all but a couple of beams crossed under fire, and positions thus secured which the well-drilled Austrians, Prussians, or British believed to be unassailable by mortal man—and so they would have been to any others trained with equal strictness in the same school as the German or English troops. The French never had time to instil the dominant thought of 'cohesion at any price' into their men. When face to face with a great difficulty, being by their composition distinctly more intelligent than their opponents, every one alike saw what ought to be done, and thus they created the 'collective will-power' to which the most impressionable at once responded. Under similar circumstances in other armies the dominant thought, hammered in by years of training, that to break the ranks was a crime under all circumstances (and in ninety-nine cases out of a hundred it undoubtedly is so) would have asserted itself with greater force on the impressionable ones, and would have kept them in their places. The great problem in all Armies is, and always has been, to hit off a mean in their training of soldiers, which, whilst making them steady enough, does not altogether cramp the spirit of initiative. The Austrians and Prussians before Austerlitz and Jena failed in discovering this happy medium, because they had been prepared for the battlefield only, the duties of preparatory skirmishing, outposts, etc., being mainly carried out by Light Infantry specially enlisted for each campaign and generally disbanded in Peace. We appear to have hit the mean more happily than any other Power, but that was principally thanks to our world-wide experience in the Colonies, and not, primarily at any rate, to the foresight of our Commanders.

[1] The bridge of Elchingen in 1805, and several instances in the Peninsula.

The whole difficulty really lies in the variable nature of the tasks which Infantry and Cavalry are called upon to solve. And this brings us to the discussion of the psychology of the battlefield, a point which in England has never received due attention, partly because of real 'battles,' in the strict sense of the word, we have fought so very few.

For this we must turn to Clausewitz, and, in quoting from his work, I confess that it was not till M. le Bon supplied the key, that I was able to understand all that the passage contains.

CHAPTER XIII

THE PSYCHOLOGY OF THE BATTLEFIELD

'Let us accompany the novice to the battlefield. As we approach, the thunder of the cannon becoming plainer and plainer is soon followed by the howling of the shot, which attracts the attention of the inexperienced.

'We hasten to the hill where stands the General and his numerous Staff; here the close striking of the cannon balls and the bursting of shells become so frequent that the seriousness of life makes itself visible through the picture of youthful imagination. Suddenly someone known to us falls—a shell strikes into a crowd and causes some involuntary movements; we begin to feel that we are no longer perfectly at ease and collected, even the bravest is at least to some degree confused.

'Now, a step further into the battle which is raging before us, like a scene in a theatre, we get to the nearest General of Division; here ball follows ball, and the noise of our own guns increases the confusion—from the General of Division to the Brigadier. He, a man of acknowledged bravery, keeps carefully behind a rise of the ground, a house, or a tree—a sure sign of increasing danger. Grape rattles on the roofs of the houses and in the fields; cannon balls howl over us, and plough the air in all directions, and soon there is a frequent whistling of musket balls. Then a step further towards the troops, to that sterling Infantry which for hours has maintained its firmness under this heavy fire; here the air is filled with the hissing of balls which announce their proximity by a short sharp noise, as they pass within an inch of ear, head, or breast. To add to all this, compassion strikes the beating heart with pity at the sight of the maimed and fallen. The young soldier cannot reach any of

these different strata of danger without feeling that the light of reason does not move here in the same medium, that it is not refracted in the same manner as in speculative contemplation. Indeed, he must be a very extraordinary man who, under these impressions for the first time, does not lose the power of making any instantaneous decisions. It is true that habit soon blunts these impressions; in half an hour we begin to be more or less indifferent to all that is going on around us; but an ordinary character never attains to complete coolness and natural elasticity of mind.' [1]

In the above, Clausewitz has generalised the whole of his twenty-five years of active service experience, and the passage remains as true now as when it was written. The essence of it all is the gradual wearing down of the reasoning-power of man, and his lapse into pure instinctive action.

But to apply the ideas it conveys, it is necessary to differentiate more precisely between the successive stages which every *normal* battle involves, for this is precisely where, in England, the greatest vagueness of thought prevails.

This is not to be wondered at when we remember that actually no 'normal' battle has been fought through to its final issue since 1815. For reasons already given above (Chapter III.), such as the change of the relative range and power of the principal Arms; of mobility varying with locality, *e.g.* Turkey 1877, South Africa 1900, Manchuria 1904, the form of the battle has fluctuated most considerably, and the tactical defensive has locally acquired far higher importance than the nature of the armaments in use would have led one to predict. But in Western Europe the cycle of evolution has worked itself out, and for very many years to come practical equality in all the governing conditions—viz. mobility (strategic and tactical), range and rapidity of fire of Infantry and Artillery—has been reached.

Hence it will be advisable to trace out the broad outlines of the coming decisive struggle, and bring out the modifications, in the form of each successive incident in the whole, that these changes must entail.

[1] *Clausewitz on War*, Book I. p. 36. Graham's translation.

In England it is customary to divide the battle into three successive incidents, viz. 'reconnaissance,' 'preparation,' and 'execution.' Personally, I object to the first two expressions, and prefer those employed by the modern French school, viz. 'prise de contact' and 'fixation,' for these explain far better the demands that each makes upon the spirit of the troops. Reconnaissance implies merely 'seeing,' which, with increased distances and smokeless powder, is obviously immensely more difficult than formerly it was. An Advance Guard, or screen, which sets out with the firm conviction that 'seeing' is the whole of its duty, runs a not inconsiderable risk of forgetting that in order to 'see,' one must also fight. 'Prise de contact' is simply the 'engagement' of the swordsman; the blades must 'bind,' it is from the pressure of the opposing weapon that the fencer gauges mainly his adversary's intentions and strength of wrist. Similarly, the long lines of Advance Guards covering the marching columns of a great army over a front of perhaps fifty miles must 'take contact,' gauging and developing the enemy's strength at important points. Presently, as the following troops reach the field, the gaps between the several columns are closed by long lines of batteries and a continuous line develops which as yet has no offensive power, and cannot, of itself, actually hold the enemy, or compel him to expend his reserves. That he should do this however is essential, and is the chief pivot on which the Napoleonic strategy was based, but it has taken the military thought of Europe just a century to realise this fact and its whole bearing. Even Clausewitz seems hardly to have grasped its full meaning, for in his chapters on 'Friction' and the 'Unforeseen in War,' whilst pointing out that most of the many factors which may vitiate the design of a leader can be predicted within reasonable limits—such as the influence of weather on the roads as affecting the rate of marching, the miscarriage or misinterpretation of orders—yet there remains one influence which escapes all prediction, viz. the 'independent will of the enemy.'

It was, however, precisely this which Napoleon undertook to paralyse, both strategically and tactically; and tactically

he always adopted the same means, viz. a resolute attack along the whole battle front which compelled his opponent to subordinate all his preconceived operations, and devote himself to the immediate purpose of frustrating these attacks. There was no feint about them; they were resolute endeavours to secure local advantages for subsequent utilisation by the reserves. But, as the Emperor knew his own mind, he was in no uncertainty as to which attack to support, or which to sacrifice: thus he was able to effect an enormous economy in the expenditure of his '*chair à canon*,' whereas his enemy, always in doubt as to where the ultimate blow would fall, was compelled to use up his men in fruitless efforts to maintain an equal struggle everywhere. Nothing in the nature of the weapons employed can affect the principle here involved, though, as we shall presently see, they may render its practical application easier. Hence the same procedure remains as essential now as then, and as modern 'battles' will involve groups of armies—three or more, each consisting of from four to five Army Corps—the brunt of these holding attacks will fall on the main bodies of the leading Army Corps, which may even require before their object is attained to be largely reinforced from the 'following units,' which, in turn, may in fact be completely expended before the real crisis of the engagement is reached.

Now, since an Army Corps marching on a single road takes upwards of ten hours to bring its last combatants into line with its leading men, and under certain circumstances may take even longer, it is quite clear that the modern battle must be exceedingly protracted, and that it will seldom be possible to reach a decision in the course of a single day. The strain on the nervous endurance of the men will be immense; they must sleep where darkness overtakes them, ready to open fire at the first alarm, fortunate if they can get even water to quench the awful thirst that the excitement of fighting develops.

The relief of this first fighting-line by fresh troops is not provided for in any regulations. They must hold on as long as they can find strength enough to pull a trigger, for it is on *their* endurance that the issue of the whole depends, for the

time their supreme leader requires to complete his arrangements for the decisive act of the battle has to be purchased at the price of their blood.

If all goes well, each subordinate plays his part like members of a first-rate polo team, and the men prove uniformly staunch ; then towards the close of the second day the Commander-in-Chief will find himself at the head of some sixty to a hundred thousand fresh troops with perhaps three hundred guns to cover their assault. The battle by this time may be considered as won, for there is no longer sufficient nervous energy on the other side to prolong the struggle. But far more frequently all will not go well on either side, for however carefully one may endeavour to secure uniformity of excellence throughout the mass, differences of temperament in the men (inevitable when these are recruited territorially in a great Kingdom), and variations in the personality of their leaders must tell in the long run : hence neither side can well hope to be victorious all along the line. Moreover, all large units of troops, Divisions and Corps have an innate tendency to close inwards on their centres—partly due to the men themselves, but mainly to the tendency of each leader, more or less in proportion to his rank, to become absolutely absorbed in the execution of his particular task. Thus every long fighting-line tends to split up into groups. Here a village has to be carried and the men work round its flanks, drawing away from their comrades, whose attention is held by perhaps a group of copses from which the enemy refuses to be dislodged. Thus wide gaps are formed between the several groups (I have seen them myself in Peace time open up to 2,000 yards in width), and these are the opportunities for which a highly trained Cavalry is always on the look out, for through them a well-led force may pour in whole Divisions and, wheeling up to a flank, ride down and over the enemy's batteries, their ammunition waggons, and over the crowd of men which tends to accumulate behind the front of an engaged force.

Such incidents may change the whole face of a battle in an instant, and the best laid plans for the accumulation of a final reserve may thus easily be upset and destroyed.

The close of the second day's fighting will, in consequence, generally find both armies exhausted almost to the uttermost, and victory will incline to that Commander whose resolution still remains unbroken, and who, by his personal magnetism, can ensure a willing response to his final appeal. But a *last reserve* must be put together somehow. From one part of the field a few batteries may be withdrawn, from another a few battalions spared; these must be grouped together, no matter whence or where taken, under the command of the best available leader of men remaining—the Commander-in-Chief himself, if he knows himself to possess the true qualifications—and, under cover of the concentrated fire of every available gun, they must march to the final assault, without reference to such considerations as the vulnerability of formation, but relying solely on rapidity, and the moral force demonstrated by the mere fact of their appearance, to ensure the defeat of their enemy.[1]

It will be clear, therefore, that the demands which the men must be prepared to meet differ widely according to the position they may happen to occupy in the marching columns. When the Advance Guards take contact, their men being still fresh and well in hand, education and reason can still play their parts; the troops may be expected to endeavour to judge distance, adjust their sights, and make intelligent use of cover. But as the day wears on Officers have to begin to reckon with the result of fatigue in some, excess of excitement in others, and of intense absorption amounting almost to hypnotisation evenly distributed throughout all. Gradually the action of the reasoning faculties ceases, and instinct, or those habits which are born in a man and by training acquire even greater strength than mere instinct, will assert themselves, and then it rests with the Officers whether at a given moment the whole Command degenerates into an ordinary mob, or remains amenable to some measure of control.

By the time the final climax approaches, the men are a 'crowd' and nothing else. Then the art of the Leader consists in conferring upon that 'crowd,' by his superior will-power,

[1] At Vionville and Gravelotte, the King, Prince Frederic Charles, and Steinmetz all showed that they had grasped this idea.

and knowledge of how to exercise it, the required impulse to ensure action in a forward direction. This was essentially the point in which Napoleon excelled. He knew the exact position to assume, the precise phrases to use with which to touch the bed-rock instinct of the men, and though under the circumstances probably not fifty men actually could have heard his voice, the thought, the supreme will-power which formed the magic phrase, vibrated through the whole mass—often many thousand strong—and launched them on the path of victory.

A crowd thus set in motion can only be destroyed, but never stopped except by the physical obstacle of their own dead. Men no longer wait to count their losses, or pick up their friends; nine-tenths of them are quite unconscious of their own bodies, which are borne forward by a species of exaltation of the soul which renders its owner insensible to all ideas of personal risk.

Thus there are three separate and successive stages in a battle for which our training has to provide. In the first, as already said, the chief demand is made upon the intellect; in the second, on the instinct of duty; and in the third, on that function of the mind which is most susceptible to hypnotic suggestion; and the practical difficulty is that at first sight all these three things seem to be in mutual contradiction.

If you teach your men to be skilful adepts in taking cover, and confident in their individual skill with the rifle, how are you to ensure their arrival at the proper time and place to make their collective fire-power fully felt? With the front line this is comparatively easy, but how does it stand with the men in the 'following lines,' who may often have to cross hundreds of yards of bullet-swept spaces without returning a shot?

In the old days, as already pointed out, the difficulty was overcome either by raising a special class of men at the outbreak of the War—a course which, on the Continent at least, is no longer practicable—or by training certain Companies or Battalions for these duties only, as in the case of our celebrated Light Division, or the Voltigeurs in France. But both of these owed their excellence to

previous War experience, principally in America, and on this it is no longer possible to count; and, moreover, with modern armies it cannot be predicted beforehand that these special units will always be available at the time and place they are most required. Hence the custom has become general of training the whole of their foot soldiers to perform indifferently the duties of either 'Light' or 'Line' Infantry, and the training of all has suffered accordingly. At one time the 'school of the skirmisher' prevails, as at present in England; at another 'the school of the Line'; but in general, and in proportion as War experience declines, the ideas of the 'Line' prevail—not as people generally suppose because the governing authorities lose sight of the apparent necessities of the case, but because experience shows that the great bulk of humanity have not imagination enough to learn skirmishing properly where no bullets are flying; therefore one must confine oneself to the attainable, not waste one's energies in the pursuit of the ideal.

The term 'Line' must not, however, be taken to include the idea of extreme rigidity, which, it has been pointed out, was a necessary element of its being in the old days of the musket. With the short range of the latter, time was altogether wanting to develop the full power of destruction inherent in the formation of the 'Line,' but the increase in range, owing to the introduction of the rifle, followed presently by the invention of the breech-loader, by enabling the target to be kept under fire for a longer period, has made it possible to give greater effect to the principle of mobility than formerly. This does not imply that the idea of the greatest number of rifles practicable in the fighting line should be departed from, only that it is necessary to effect a compromise between mobility and fire-power, and the point is to hit the happy mean between these two things.

It is of such importance to obtain perfectly clear ideas on this subject that it is necessary to trace again the steps which have led to the present solution of the problem. As already pointed out,[1] there has always been a demand for skilful skirmishers to protect and facilitate the progress of the real

[1] *Vide* Chapter III.

decision compelling weapon—the Line—to within effective distance of the enemy. In the old days (*i.e.* up to the close of the Seven Years' War) there was always a sufficient supply of men available amongst poachers, gamekeepers, frontier guards, and robbers of all descriptions, whose peaceful occupations of hunting and being hunted kept all their faculties of concealment, evasion, and retaliation alive to the highest extent. These men needed formal drill training as little as do Red Indians or Boers. On the other hand, they had not cohesion enough to withstand the shock of contact with civilised troops, for the same reason that civilisation has triumphed over barbarism the world over, viz. because of the ethical spirit of duty which in its highest expression involves the readiness of the individual to sacrifice his life for the good of the community, a spirit notoriously absent in men of the class I have above indicated. These sources of supply having long since dried up in Europe, whilst the need for a protecting screen remains almost as obvious as before, every army in succession has endeavoured to select in Peace-time men whom it is economically worth while to endeavour to train for these duties. There are in a regiment always some men quicker and more intelligent than others: hence the tendency remains to pick them out and employ them as scouts, cyclists, or Mounted Infantry, and the like. But this procedure always encounters the opposition of the Officer commanding the unit from which the men are chosen, for very naturally he objects to be left with the dullest and least energetic still on his hands. Fifty years ago the old Light Companies had to be suppressed in deference to this current of opinion, and there are many voices now clamouring for the suppression of the Mounted Infantry on exactly the same ground. Now, though under our own peculiar conditions I cannot help considering that this step would be a mistake, it is nevertheless a very serious question whether for European purposes all these special formations have not had their day: whether, in fact, these specially endowed men, whom it is sought to segregate, could not do better work by their example and intelligence in the ranks of their own battalions, than when formed into little units of their own.

To settle this it is necessary to look very closely into the fundamental distinction between the fighting of the skirmisher and the man of the 'Line.' In the former the object is to inflict as much injury as possible on the enemy with the least risk to oneself ; in the latter to strive for the annihilation of the adversary without counting the cost. The class of men from whom the early 'Light' troops were drawn were by their previous lives sufficiently familiar with the need of killing their opponent as a primary step towards attaining their desires, whether these were scalps, game, or personal revenge. The civilised man has no personal incentive to kill any particular enemy at all, but a very strong one indeed to avoid receiving injury himself. Hence as soon as the danger becomes real he is very apt to remember only the second part of his instructions and to forget the first. This tendency was very distinctly visible in the earlier stages of the South African War, and was indeed the chief reason why our Intelligence Service so frequently failed us. Troops were sent out to find the enemy and fix his position ; they skirmished in most approved fashion, eventually drawing the fire of an indeterminable number of rifles from some undefined position, and then duly returned quite satisfied with themselves to report. On this very general information schemes of attack were issued, and, after many delays to allow the rest of the troops to get into position, the whole force moved forward only to find that their march had been checked and delay incurred by the action of a few dozen Boers who must have been brushed aside by a resolute advance of the scouts. Yet so ingrained had this idea of the avoidance of loss become, that but few voices were raised to point out that scouting implies something more than the mere drawing of fire from an enemy's patrols.

'Skirmishing nourishes the natural grain of cowardice which if we are honest with ourselves we must admit to lie at the bottom of all our hearts,' wrote Berenhorst,[1] discussing the same question more than a century ago, and is it advisable, therefore, to inoculate the whole of our Infantry (of whom

[1] Scharnhorst also uses this expression ; but which originated it cannot now be determined.

not more than a small fraction on any one particular day can find opportunity of exercising their skill as 'Light' Infantry) with a double dose of the original poison we all already possess, particularly when we take into account the far sterner work which remains for the bulk of our troops to perform?

That the public in general should side with the skirmisher school is but natural, for the average man in the street, when reading his halfpenny paper, only sees the combat from his personal point of view. In imagination he pictures himself a marvel of cunning and coolness, creeping from cover to cover, which is always conveniently at hand, and carefully estimating the distance, adjusting his sights, and dropping an enemy at every shot. It never occurs to him that coolness might desert him, that cover might not always lie exactly where he would like it to be, but least of all can he realise for how little he, as a unit, would count in the line of battle. Yet that is the bed-rock fact, and the one which the whole of a soldier's training should be devoted to eliminating.

Actually a General bases his plans on definite facts, and not on vague reports brought in by excited and elated men; and, if he can get these facts with greater certainty by employing more men with greater energy, then he is fully justified in employing them, even at the cost of locally heavier losses.

If the leading units suffer, the following ones are the gainers, and this spirit of community of interests it should be our chief effort to encourage and develop.

But how are we to obtain this sense of community of interests, how bring home to the millions of the working classes, from whom ultimately our fighting men are derived, the idea that their country, as they see it, is a conception worth dying for? If, as a fact, our existing methods of secular education exercised the influence it is the fashion to assign to them, *i.e.* if the nation were ruled by reason not by hereditary influences, I confess one might well despair of the future.

For what have the masses to look forward to now that religion has apparently lost its hold over them, and the

materialism of our last generation of philosophers, thanks to cheap printing, is within the reach of every Board School child? I am familiar with most of the modern literature which has arisen from attempts to predict the consequences of the Darwinian theory of the 'survival of the fittest.' Were no other forces at work than those which these writers, who range in intellectual capacity from the highest down to the degenerates (whom Lombroso and Nordau have so ably investigated), have assumed, logic at least would leave me no word to say. With them I should have to subscribe to the dismal picture of the future which le Bon has so strikingly depicted.[1] But fortunately I discern the action of a third force, which entirely modifies these pessimistic conclusions, viz. the influence of the 'struggle for survival amongst the nations,' which is not, fortunately for humanity, decided by peaceful competition alone, but ultimately by that appeal to arms which we call War, which appeal Clausewitz defines as the 'logical consequence of extreme competition.'

Reverting to the line of thought which has been indicated in my opening chapters, it will be seen that from the most remote ages, from the days when our earliest ancestors drove out the cave bear or lion, and destroyed the mammoth and elephant by co-operation, this instinct of mutual assistance has been constantly at work amongst us.

It is usual to attribute the origin of religion and belief in the supernatural to the influence of dreams, to the effect of electric disturbance of the atmosphere previous to thunderstorms on the human brain, to earthquakes and so forth; and no doubt all these have had their due effect, but I suggest that the origin of priestly power is really to be sought in the necessity of finding some means powerful enough to compel tribes to combine for purposes of self-defence. It was absolutely necessary to create a 'hell' to have somewhere for the cowards to go to, and a 'heaven,' of course, was the necessary antithesis.

Altruism was known to the world long before the Christian era, though no doubt it then found its highest

[1] Le Bon, *La Psychologie du Socialisme*, p. 106.

expression, and, following the stream of civilisation down from its sources, it seems clear to me that races have survived in precise proportion to the purity of the conception of self-sacrifice embodied in their respective creeds. Future rewards, varying in magnitude from the happy hunting-grounds of the Red Indians, the Valhalla of our own Norse ancestors, down to the æsthetic, but to me less attractive, jewelled courts of the Revelation, have been held out since the beginning of time, but the moment the influence of the priesthood has painted these with sufficient seductive power to induce their followers to think more of saving their own souls than of dying for their friends, the race has collapsed in War, and a fresh era of reform has set in.

Actually in all other respects religions are so alike that it has often taken centuries for the balance to assert itself. But the broad facts are clear, viz., that Paganism has everywhere gone down before Monotheism, and Monotheism before Christianity; whilst within the Church founded by Christ Himself, the most unselfish form has produced those races which at the present moment seem destined to control the world. One sees the extreme types best in danger at sea. The Spaniards and other Latin races pray to their saints in the hope of saving their souls, the British sailor risks his life in the endeavour to save his ship.

'We are governed by the spirits of our dead,' and I submit that this inherited instinct of self-sacrifice is so deeply ingrained in the race that the intellectual disturbances of the moment, whatever they may be from time to time, no more ruffle its foundation than the waves of a storm trouble the bed of the ocean. But it remains for us to use all human effort to prevent the decay of this instinct, for success in War is only a question of relative superiority, and it is the battlefield itself which determines in which of the two combatants the spirit of self-sacrifice is the most active.

The religion a race professes, stripped bare of all dogmas invented by the priests, is, therefore, that innate conviction of what is best for the survival of the whole community which it has derived from the experiences of the past. It is the law which every normal person instinctively recognises

as applicable to the conduct of his neighbours towards himself, every deviation from which standard ought to be severely punished in this world or the next.

In theory he is willing to accept its application to himself likewise; but in practice the necessities for his own individual survival always create extenuating circumstances sufficient to justify in his opinion *his* lapses from the narrow path, and this strain of individualism is so strong that force is needed to restrain it. The justification of compulsory secular education has always been that the spread of information it ensures teaches all and sundry that it is better to restrain this individualism and thus avoid collision with the law rather than to affront it. But in practice the desire for survival is too strong to be subdued, and the trained intelligence devotes itself to twisting the letter of the law to suit its own purposes. To counteract this tendency the aid of religion has to be invoked. In other words, instinct has to be opposed to reason, with the result that, by the clash of opinion, interest in both is evolved, with a consequent gain to efficiency in each. Both, however, are subjects of such infinite complexity and vast extent, that inner circles of differences arise within the zone of each, and whilst the crowd deplore the bitterness of the war of sects, the philosopher notes only the living interest which the severity of the fighting excitement of the combatants indicates, and contrasts it, not without satisfaction, with the lethargy and decay which sets in where uniformity is established, or opposition reduced to a minimum.

Can anyone doubt that the religious spirit and the desire for education are not both immeasurably more alive in the England of to-day than fifty years ago, or than in Spain before the days of the Inquisition?

We can, therefore, confidently rely upon the Churches to do our work in laying those foundations of ethical principles which the soldier must possess before we can rely upon him to die at his post in the fighting line; for, however much they may all disagree amongst themselves as to details, they are at least at one in the broad essentials, and these are all we need the minds of our men to be attuned to. They must be sensitive enough to respond to the chords of some simple chorale,

or answer to the verbal appeal of some straightforward soldierly chaplain—a man like Father Brindle or the late Dr. Edgehill, for example—who, with a few eloquent words free from all taint of hypocrisies or sacerdotalism, can pierce right through to the hearts of men and convince them.[1]

This is an exceedingly difficult subject for a soldier to touch upon, particularly for one who whilst unable to subscribe to the dogmas of any recognised Church, nevertheless has been compelled by his own experience to realise the providential interference of some superior Power or Powers in our daily life. But the point is of the utmost importance if one is even to understand approximately the working of the human mind in presence of great or imminent strain, and I can only wish that some more qualified pen would take the matter in hand, and by the study of the countless records of individuals to be found in military history and biographical literature, find out what really are the bedrock instinctive convictions of the average soldier, in those interludes between strenuous action in which he does any thinking at all. The most remarkable study of the kind with which I am acquainted is from the pen of Major Robert Styles, U.S.A., who, in his 'Four Years with Massa Bob' (1861–5), gives a most extraordinary account of the inner religious life of the Army of Virginia. Few other books[2] venture on so much detail, but the conviction one acquires from all is that in the great majority the inherent egoism of the man asserts itself, and after a great battle the survivors are supremely convinced that they owe their safety to the direct interference of the Almighty. The question why this same interference was not extended in the case of the fallen seems never to obtrude upon their consciousness at all. With the dying, or seriously wounded, the attitude is different. With them the thought that they have deserved well of their country seems most frequently the supreme consolation.

[1] Hoenig's *Two Brigades*. The address of the Roman Catholic Chaplain to the 38th Brigade going into action at Mars La Tour.

[2] See also *Memoirs of John Ship*. His remarks on the conduct of men at the Siege of Bhurtpore, where our assaults on the breach were beaten off four times with terrible losses.

If, therefore, with regard to the teaching of the Churches in our schools, the Army can afford to be contented, can even welcome the conflict of opinions which the religious deplore, the case is not quite so clear with regard to secular education, which is directed far too exclusively to the intellect, and not enough to the will. Here we are paying for the sins of our immediate predecessors in more than full measure, and are suffering for the lack of those object-lessons in invasion and its consequences from which our neighbours have so richly profited. This is an after consequence of the divorce between the Army and the People which I have referred to above and to which I shall have to return hereafter.

Meanwhile I think that the Nation as yet hardly realises the debt it owes to those who during the last generation have devoted themselves to its primary education. Twenty years ago, in common with many others, I could see no virtue in the Board School system at all. The recruits came to us crassly illiterate, and the manners and customs of the children frequenting these schools were so disgusting that our married soldiers protested, and I think we their Officers all considered with good reason, when the suppression of the Regimental schools in Mr. Childers' administration compelled them to send their cleanly and decently brought up boys and girls to associate with such objectionable little hooligans.

Even then, however, a change must have been in progress, for about ten years ago I began to be struck with the great improvement in the type of recruit I saw about the streets in a great garrison town, and a few years later the flood tide reached the Volunteers. I can certify that my young recruits now reach me immeasurably better suited to make self-respecting and obedient soldiers than was the case before that time.

It is particularly their willingness to submit to discipline that strikes me, and I hear the same from all who have been associated with Boy Brigades and similar institutions all over the country. The only defect I find in them is their positive distaste to the idea of co-operation in games, or to submitting to the sacrifice of their own convenience. If the boys of our upper classes suffer from too many games, those of the lower

ones have far too few, and it is difficult to suggest a remedy. Still, military exercises and physical drills, together with the efforts now being made by the Empire League and similar institutions,[1] are all preparing the way, and funds only are needed to initiate a very great development indeed. Where these are to come from I propose to indicate hereafter. Meanwhile I will only point out some of our difficulties and the way out of them.

Fundamentally the trouble lies in the persistence of the views of the peace-at-any-price party amongst that class of the population from which the committees controlling the local expenditure are derived. They are still saturated with prejudices against the King's uniform, inherited from their grandfathers.

These men naturally appoint only men whose views harmonise with their own to the places within their gift. In Germany most of the best elementary schoolmasters come from the Army; and there seems nothing but prejudice to prevent our adopting a similar plan, for we nowadays get, as soldiers, very many men intellectually fit for these posts, and after their seven years' service they would come with an all-round working knowledge of the world, which cannot be learnt from books, and secures for the man who possesses it a degree of confidence from his pupils to which the untravelled teacher can never hope to attain. I see all the many difficulties in the way, more particularly the social troubles likely to arise between the wives of the men (not sprung from different classes in fact, but trained in two different schools), and to all these I shall recur again. The only point I wish to make here is that from the very first the children should be taught to look up to and respect the wearers of the King's uniform; and that they should profit in character and education by the experience the Army is always acquiring all over the world. I am convinced of this, that in all classes it is the personal knowledge of the teacher, not his acquired book learning, that conditions the choice of career made by his pupils. Youths take up professions not because they have read about them in books, but because someone they know, and in whom they

[1] See *Our Birthright*, by 'Optimist,' published since the above was written.

place confidence, has advised them to do so. The book may be written by the first expert in the world, but so absolutely at variance with our instincts is the conception of book-learning, that in 999 cases out of 1,000 in serious matters a man goes to his nearest friend before deciding where to go or what to take up.

The essence of my whole argument is that in the schools the youth of both sexes should learn what the Empire really means and is, and that the men who risk their lives in its service not only deserve, but should receive, the respect of the whole community.

It is to my mind an open question whether anything approaching a regular drill training should be attempted in the schools, for the tuning of the mind to the attitude of 'attention' (I do not care how the body stands, provided the end can be attained) is very severe, and the chances are that, since susceptibility to the collective will-power of the crowd bears no relation to physical stature or development, we might hypnotise hundreds entirely unfit for the ranks of the service into a passion for the Army which would entirely incapacitate them from succeeding in any other walk of life.[1] And we must never let zeal for the service blind us to the fact that War is only an occasional crisis in the competition for existence always in progress around us. We need contented workmen in every sphere of industry as well as able-bodied fighters, and the essence of success lies in this, that in each department, Civil, Military, or Naval, we should have the men best suited for their special tasks.

If, in the manner above suggested, we succeed in imparting to the youth of the Nation the elementary conceptions of religion and morality, together with a respect for the deeds of their forefathers, and a knowledge of all they have bequeathed to us, then I think the training for the final act of the battle can be well attained in the time available, by the intelligent application of existing means.

Let me endeavour by analogy to convey a clear idea of what we really seek to obtain by drill-ground methods.

Imagine a Marconi sending station in front of a line of

[1] I have personally encountered several such cases.

transmitters, each connected to relay batteries providing power, let us say, to work a gun, but tuned to respond to different wave-lengths. It is obvious that when the impulse from the sender was emitted some would respond, others would not, and the fire power of the battery would be seriously below expectations. This is exactly what takes place with a line of imperfectly trained soldiers, and the whole end, aim, and object of the drill ground is to tune the minds of the men to respond smartly and instantaneously to the impulse of the commanding officer.

The civilian spectator sees only the direct connection between the spoken words and the act performed in response. The trained soldier notes the spirit in which they are uttered, and the consequent energy of execution which results, and from personal experience I can vouch that both men and horses obey the *thought*, not the *word*—for the horses certainly cannot understand what they mean, and very frequently neither can hear nor see either words or gesture, but respond to the impulse that throbs throughout the mass.

In the case of the Marconi receivers, above cited, it would be quite easy to arrange that the relay batteries should, on being called into action, give off a further inductive influence to each of the receivers in their neighbourhood, and thus generate a collective power to which the particles even of a sticky coherer would have to respond, and this arrangement would complete the analogy, for it is an undoubted fact that with human beings the power does increase in proportion to the magnitude of the crowd. This is, in fact, the great force to which all preachers and revivalists appeal, and very often with far greater results than we in the Army can attain. But the process is the same in both cases. The revivalist or the great preacher first attunes the minds of his congregation by hymns or music, awakening the religious instinct which slumbers in all our hearts, and then, by skilful appeals to his hearers, generates a collective will-power which hypnotises the more susceptible, who throw aside all restraints of reason or natural reticence, and sometimes rush forward to the penitent bench betraying every indication of the mesmeric trance.

In all these cases the intellectual capacity of the preacher goes for nothing. It is the intense conviction with which he throws himself into his business which is really the controlling factor, and precisely the same phenomena appear upon the parade ground. It is the Soul of the Leader that counts, the rest matters very little. Unfortunately written examinations do not reveal the Soul, and many a boy has been spun for some slight reason, who in this respect might have been a born leader of men.

Once this idea is clearly grasped many, if not indeed most, of the practical enigmas one encounters with the men melt away, and the way is clear towards practical reform. We see the extreme significance of the old ceremonial drill, and can understand the sentiment which has induced all the most experienced leaders to adhere to it; at the same time it seems that since its results depend on the energy and conviction thrown into its performance, as well as to the solemnity of the occasion, we are very apt to blunt the minds of the men, instead of tuning them, by too frequent practice of the forms we employ.

That this is the case appears to be abundantly clear from the constant complaints of time wasted in empty ceremonial and barrack-square drill. If the purpose of these exercises were properly understood, and they were conducted with energy and conviction on the part of the principal commanders, this feeling of tedium would never arise. A good preacher gets a good congregation, a bad one empties the church, and the same holds good of Commanding Officers.

Since, however, energy and concentration are the very essence of the whole matter, it follows that the duration of all such exercises should be suited to the powers both of commanders and men; and particularly during the early training of the young soldier too much should not be required of him. This is the vital defect in our methods for the training of recruits, and particularly of our Infantry Volunteers in camp, in both of which cases the prolonged strain, on minds generally quite unprepared for such efforts, defeats the object they aim at securing. If once, however, the real purpose of these parades was thoroughly grasped, I believe that in the time

available far more might be attained, and that if the whole subject was closely investigated, then by utilising the immense forces developed by the populace generally in times of great national emergencies, we might rival all that has ever been attained by religious mania in the past, and create troops as indifferent to suffering and fatigue as the Flagellants and other associations founded on hysterical mania in the Middle Ages.

The terms 'Psychological moment,' 'Soul of a great people,' 'Voice of the Nation,' etc., which flow so readily from the pens of the average leader writers, are indeed substantial facts capable of scientific explanation, and this truth has but to be realised and its control placed in the hands of men who will know how to utilise it, to ensure the provision of Armies as capable of extreme heroism as any which distinguished themselves in the past. During the South African War our official leaders abdicated their proper functions, and by sheer ignorance of the principles involved, applied their powers to destroy the most instinctive qualities of the race. Fortunately for the Nation, they neither knew their own strength nor the means by which to employ it. Hence the results were insignificant. But, given a Leader who, conscious of the powers latent in the Race and the means by which to develop it, applies all the means which science has now rendered available to the definite end of teaching men 'to know how to die'—not how to avoid dying [1]—and we shall soon find men as ready as ever were their ancestors to clamour for the right of rushing to what will appear to them to be certain death, when they know that thereby they will attain a great end.

In proportion as this spirit rises, the actual risks will diminish, for such troops will be invincible, and Victory is the shortest road to the reduction of the casualty lists.

[1] Scharnhorst's comment pencilled on a file of proposals sent in to the Prussian War Office, before Jena, advocating the introduction of modern skirmishing methods. See Lehmann's *Life of Scharnhorst*, v. der Goltz's Roszbach und Jena.

CHAPTER XIV

VOLUNTARY *VERSUS* COMPULSORY SERVICE

If then victory on the battlefield is essentially conditioned by Psychical and Physical factors, and since, as I have shown above, the Voluntary system practically suffices to give us the numbers, and ensure us the mental equipment we require—the only point needed to settle our choice between free will and compulsion is to determine whether the certainty of securing both the physical pick of the nation, and the distribution of our numbers at the time and place required, which the latter affords, outweighs the other advantages I have already demonstrated for the former. The balance is a very hard one to strike, for of the advantages of certainty in the numbers to be employed there can be no question, whilst it is by no means easy to prove that conscript armies will not fight, not merely as well as volunteers, but even better, as a consequence of the presumably better training it is possible to ensure for them. Hitherto to my knowledge no sufficient investigation of the matter has ever been published—we have abundance of opinions but no reasoned conclusion, because the evidence has never been submitted to a scientifically directed scrutiny.

To enter into such an investigation would need a separate and a bulky volume, indeed I doubt whether any man single-handed could undertake the task. It is in fact one of those subjects for which an Historical Section of the General Staff is particularly needed. Nevertheless the broad conclusion I have reached may be of interest, and may well indicate a fresh field of inquiry for a younger generation.

It will be admitted that the best test of the value of a body of troops is the capacity they exhibit for enduring losses

in a victorious advance, or even in an unsuccessful one, provided it is possible to disentangle with reasonable accuracy the proportion of casualties incurred up to the moment at which their forward impulse expired. Even when this disentanglement is too difficult, still the average of a sufficient number of engagements will afford a reasonable standard of comparison, for on substantially the same theatres of War the progress of every battle will follow much the same course, and the quality of the raw material which provided the troops changes too slowly to influence the problem, such differences as the results indicate being due to superior training, superior leading, or to both. Thus the French have often beaten the Prussians and as often been beaten by them in return, the Prussians have beaten the Austrians and *vice versâ*, the result locally being due to superior Generalship and consequently superior training first on one side, then on the other.

Further, it is clear that the shorter the time in which punishment is inflicted, the heavier the strain on the men engaged; more men fall on a smaller area, and the effect of the enemy's fire is more vividly brought home to the imagination of the survivors, and it is the conduct of these which determines whether the attack goes forward or recoils.

Death itself remains the same whichever end of the barrel the bullet which inflicts it was originally inserted, and the wounds and the consequence of those wounds, viz. hospitals without anæsthetics, the use of the actual cautery, etc., assuredly called for greater courage to confront than is needed nowadays.

Bearing these points in mind let us turn to Diagram IV which is drawn up to show the average of punishment endured per hour in typical battles during the last 150 years, and endeavour to realise their significance. It will be seen that the heaviest punishments ever endured were borne by the Prussians in the Seven Years' War—next come the Americans during the War of Secession, 1862–4, both being raised essentially by volunteer methods, though occasional recourse to the ballot was not unknown. Then come the French Napoleonic troops in 1805–6, and the Germans

in 1870, the former being 'conscripts' in the technical meaning of the word, the latter the result of compulsory service for all, with no paid substitutes. On the other hand, the voluntary system breaks down badly in the French revolutionary levies, though there were many instances of individual gallantry for which it would be difficult to find a parallel, and the first year of the American Civil War was equally unsatisfactory.

The broad inference is that neither system in itself is a panacea for unsteadiness in the field, and that other factors must be searched for if we are to find a satisfactory answer for our problem.

Enthusiasm for the National Cause seems a natural one to choose, but this again works out badly. Probably no troops ever felt less the patriotic impulse than those of Frederic the Great, the conception then had indeed hardly arisen; on the other hand it was burning at its brightest, both in 1792–4, with the French and in the Germans from 1813 and 1814; 1813 and 1814 were the 'Befreiungskriege' when all Germany rose against the French.

Neither does War training seem to tell as strongly as one would anticipate, for some of the hardest fighting has been accomplished by troops on their first appearance in the field of battle. Of late years, indeed, the belief in War-seasoned veterans in Continental Armies has fallen very decidedly into the background, the probable reason being that there are few if any men living now who have ever seen any, for the usual explanation that this is due to the intensity of modern breech-loading fire will hardly hold water for the reasons given above. Obviously the risk of being hit where men are falling at the rate of 10 per cent. per hour must be greater than where they only fall at the rate of 2 per cent., and if the danger is greater, the fire must be more dangerous too.[1]

Combining all these factors we find that on the whole continuity of training, together with voluntary service, gives the best results, provided, of course, that the system of

[1] For a detailed investigation of these points see *Evolution of Infantry Tactics*, and *Attack or Defence*, by the Author.

training is sound, and this conclusion agrees with the ideas which naturally evolve themselves from the application of the principles I have developed in the two previous chapters.

Assuming the methods of training in each case to be in principle the same, it is clear that with compulsion more work can be done in a given time, and hence greater efficiency should result. Probably, as judged by the physique of the men, this is the case, though Professor Sandow might give good reason for a different opinion, but I am content to waive the point; my case is strong enough to dispense with it, for I submit that the introduction of unwillingness in the mass is fatal to the development of the full 'collective will-power' we aim at.

The difficulty, of course, is to isolate each condition from its surroundings, for there never has been such a thing as a purely compulsory Army, or a purely voluntary one. The latter have always contained some conscripts of hunger or of circumstances, the former many men who would certainly have been Volunteers had there been no compulsory laws, and of the others a very large proportion who join unwillingly, soon adapt themselves to their surroundings, and become in Peace-time as keen as Volunteers.

This seems to be largely a matter of national temperament. In France, when Napoleon was at the zenith of his glory, his recruits, however zealously they endeavoured to evade the conscription, soon settled down and became contented with their lot, until in Poland and Spain it became frankly unendurable. The Germans, too, adapt themselves easily in Peace, but neither race appears to possess the power of collectively rising to a great occasion, like the British, and certainly neither is so dangerous in a retreat.

It would be easy to cite hundreds of instances in support of this view, taken principally from the history of the Conquest of India[1] and the Mutiny, but the testimony from the pen of Sir John Michel, quoted above (Chapter XIII. p. 210), expresses the idea I wish to convey more graphically than anything with which I am acquainted.

[1] Sieges of Bhurtpore, Deeg, and almost all our encounters with the Ghurkhas.

Nothing succeeds like success, hence after the Franco-German War it was natural for all eyes to be turned to the prowess of the Germans; but the German Officers themselves, who had seen things at close quarters, were far from sharing the views of their adulators. And as the new generation came forward who did not know War from actual experience, some of the older men found it advisable to raise the veil and disclose some real pictures of the battlefields so that men should know what they really had to prepare to meet. Foremost amongst these was Major-General Meckel,[1] the man whose name will for ever be connected with the regeneration of the Japanese Army. Very early after the campaign he startled the public in Berlin by contrasting, in one of his lectures, the losses endured by the Prussian Infantry in Frederic the Great's day with those incurred in France, and more particularly dwelling on the spirit in which they had been accepted by the troops concerned. 'We do not learn,' he said, 'that the officers of Frederic's day spent their winter leisure in discussing how the losses of the coming campaign were to be avoided or minimised.'

Subsequently he published anonymously a little pamphlet, the 'Sommernachts Traum,' from which the following extract is taken:

'I recalled my first battle in France.

'We did not arrive on the field until late in the day, and crossed it where the fight had been the fiercest. I was already used to the sight of the dead and wounded, but not prepared for what now met my eyes. The field was literally strewn with men who had left the ranks, and were doing nothing.

'Whole battalions could have been formed from them.

'From our position we could count hundreds; some were lying down, their rifles pointing to the front as if they were still in the fighting line, and were expecting the enemy to attack at any moment.

'These men had evidently remained behind, lying down, when the more courageous had advanced.

[1] Since the above was written, General Meckel has died. I should like to record here the debt I owe to him for having first opened my eyes to the real truth of the modern Battlefield.

'Others had squatted like hares in the furrows. Wherever a bush or ditch gave shelter there were men to be seen who in some cases had made themselves very comfortable.

'All these men gazed at us without showing the least interest.

'The fact that we belonged to another Army Corps seemed to be a sufficient excuse for treating us with blank indifference.

'I heard them say, "These fellows, like the others, are going to let themselves be shot."

'The men nearest to me bore on their shoulder-straps the number of a famous regiment.

'I turned to look at my own men. They began to seem uneasy. Some were pale. I myself was conscious of the depressing effect produced on me by what I saw. If the fire of the breech-loader we were now to face for the first time, while already its continuous roll sounded in our ears, had so disorganised this regiment, what would happen to us?

'I presently met with an Officer of the Reserve. I invited him to join my company. He followed without uttering a word. To my annoyance my company had to make a short halt to allow the remainder of the battalion to close up.

'We therefore rallied the stragglers about us, and formed a strong party of them under the command of this Officer. Two men, a lance corporal and a private, came of their own accord and asked permission to join us; all the others were very half-hearted and had to be brought in.

'Those who could do so sneaked away. The only effect of collecting these stragglers was to produce a bad impression on my own men, for as soon as we came under the enemy's fire in some vineyards, and extended, the Reserve Officer and his party disappeared for good and all.

'I reproached myself afterwards for not having asked his name; only the two men who had voluntarily joined us remained and behaved gallantly to the end.

'During our advance and before we came to any serious fire, while only the whistle of an occasional stray bullet could be heard, we saw six men, one behind the other, in a long

queue, covering behind a tree; afterwards I saw this sight so frequently that I became used to it—who did not? But at the time it was new to me. Near the tree were little irregularities of ground that would have given good cover for all six. And this, I said to myself, as I now thought over the matter, is the result of three years' careful education in the independent use of covers!

'Would not Frederic's soldiers, who knew nothing of fighting independently, have been ashamed to present such a spectacle to passing troops?'

Hoenig, it is true, objected to this statement as overcoloured and wrote in response his 'Winter Day Realities,' a brilliant and convincing account of certain incidents in the fighting on the Loire, but he omits to point out the very different character of the enemy then opposed to the Germans, and seems also to have forgotten his own previous contributions to the subject in his 'The Two Brigades,'[1] and 'Twenty-Four Hours of Moltke's Strategy.'

As the matter is of consequence to the whole of my argument, I make no apology for the length of my précis.

It will be remembered that the first Army commanded by Steinmetz consisted of the 1st, 7th, and 8th Corps, of which on August 18 the first was still on the eastern bank of the Moselle. By special Army Headquarters order the 8th Corps was withdrawn from Steinmetz's control and handed over to the second Army, Prince Frederick Charles, the 2nd Corps being assigned to Steinmetz in exchange on its arrival, which was not expected till late in the afternoon. Steinmetz was by no means pleased with the arrangement, and his loss of mental balance had a most sinister influence on the course of the day's fighting.

His orders received from Moltke about 10.30 A.M. indicated his line of action for the day, viz., an attack on the enemy's left flank from the direction of the Bois de Vaux,

[1] *The Two Brigades* has now been incorporated in a later work from his pen, *Tactics of the Future*, translated by Captain Bower and published in the 'Wolseley' series by Kegan Paul. *Twenty-Four Hours of Moltke's Strategy* was translated by the late Col. Walford, R.A., and published by the R.A. Institution.

i.e. from the southward, the attack to be combined with the movements of the second Army, and, pending their development, Artillery alone to be employed. At the time the Infantry of the 7th Corps was scattered about, without any cohesion at all, over a large space of ground, and the first duty of the Corps Commander should have been to get them in hand, a duty which Hoenig shows to have been perfectly practicable. Within two hours, nineteen battalions might easily have been concentrated along the northern edge of the above-mentioned wood, but nothing of the kind was attempted. When, about noon, the firing began, the whole Artillery available unlimbered south of Gravelotte, and a number of isolated battalions were launched straight at the French position, with no unity in their efforts whatever.

Nevertheless, by degrees they captured some very important quarries along the edge of the plateau, and further north, in conjunction with Goeben's Corps, the 8th, carried St. Hubert (a farm to the east of the defile, formed by the cuttings and embankments, by which the Metz-Verdun road descends into and crosses the ravine of the Mance), the enemy having been driven out of the buildings by Artillery fire.

Hoenig praises Goeben's handling throughout, and St. Hubert having been won and the edge of the plateau also reached, Steinmetz came to the conclusion that the enemy was beaten, and nothing remained but to pursue. Now, exactly at the same moment Goeben, and the Artillery officers of the 7th Corps, who had a good view of the enemy's position, and could see that only the outposts had been carried, the main Line being still untouched, noticed movements on the other side which led them to believe a storm was brewing, and Goeben ordered a brigade across the ravine to support St. Hubert. At this moment Steinmetz had just issued his orders for the 'pursuit.'

'The 1st Cavalry Division crosses the defile of Gravelotte; the advance guard, supported by the fire of the batteries of the 7th Corps, will attack, leaving St. Hubert on its left, in the direction of the Moscow farm, and will not draw rein till it reaches the glacis of Metz, all other regiments to follow it.' Metz, I would here point out, is at least seven miles from

St. Hubert, and the ground between absolutely impracticable for Cavalry; further, as the direction indicated points to Thionville, not Metz, it is very evident the old General had not consulted his maps. Again, if the enemy was retiring, the Cavalry must trot to overtake them, and this would bring them, in six minutes or so, alongside of Goeben's Infantry, already occupying the defile, at a spot where the embankment is twenty feet high or more, in full fire of the enemy. But this was only the beginning.

Von Zastrow at the same moment ordered the whole Artillery of his Corps at hand to cross the defile and come into action beyond it. The Commander of the Artillery could hardly believe his ears as he received this order. Seeing clearly what was coming, but compelled to obey, he sent his gallopers down the line to transmit it, with a caution not to go too fast, and to tell the battery commanders to be as slow about limbering up as they conveniently could.

Unfortunately, three batteries, not having found room to come into action, were standing ready at the western exit of Gravelotte, and nothing could save these, even though the Staff Officer did his best not to find them; they trotted off, and being nearer to the road than the Cavalry, took the lead of them.

Now (to quote Hoenig) let us use our imagination:

'First. The eastern exit of Gravelotte had been obstructed by wires, only partially removed by Infantry.

'Second. St. Hubert had just been carried, and hundreds of wounded, stragglers, etc., were dragging themselves back along the road.

'Third. To meet them comes an Infantry Regiment (the 29th); one squeezes by as best one can.

'Fourth. But this Infantry did not know Cavalry and Artillery were following.

'Fifth. The latter, also, were ignorant that they would find Infantry in front of them.

'Sixth. None of the three expected the crowds of stragglers.

'Seventh. All three were full of zeal for action. Presently all of them were chock a block.

'What a picture, and what leading! There was only one

road, and into it were thrown troops from five different Commands without any mutual understanding, any order of march, left to themselves to get through as best they could, then some to pursue, some to reinforce, etc.

'Now, add to this a wall of smoke in front, out of which the flames of burning St. Hubert shot up, the shells from 150 guns in action screaming overhead, men crowding together, crushing the wounded, the cries of the latter, the shouting, the echoes of bursting shells in the woods, and lowering dense over all a dust cloud which made dark the burning sun above. Imagine all this, and try to realise the mental condition of the men struggling to fulfil their orders.

'Needless to say, this mighty pillar of dust was not long in attracting the enemy's attention; what it was caused by they could not tell, but it was evidently something very unusual, and they prepared to meet it. The dust on the road grew denser, men fairly groped in it, and they began to remember that, as they descended, the enemy's fire, both of Infantry and guns, had almost ceased. Each felt something was brewing, and a queer feeling of anxiety as to what it might be arose.

'In front were the 4th and 3rd Light, then the 3rd Horse and the 4th Heavy Batteries, who crushed past the 29th Foot as best they might. Seizing their opportunity the 1st Cavalry Division pressed in close behind in the following order:—4th Uhlans, 2nd Cuirassiers, 9th Uhlans, another horse battery, and then the 2nd Brigade, viz. 8th Uhlans, 3rd Cuirassiers, 12th Uhlans, and to these attached themselves the two divisional regiments, the 9th and 13th Hussars, who, not belonging to the Cavalry division, tried to push past the former. They had originally all moved off in column of troops, but had been compelled to diminish the front to threes, and this not being carried out quite as on parade, had brought the following regiments to a dead halt.'

Thirty-two squadrons were thus jammed up on this narrow dyke, or between walls of rock. Fortunately for themselves the batteries of the 14th Division had been cut off by the stream, and remained limbered up, awaiting their turn, but this was nevertheless prejudicial to the whole, in

so far as it was deprived of their fire just at the moment it was most wanted (from the Gravelotte side) to cover their debouch from the other side of the valley. The leading batteries got through and unlimbered, the 4th Uhlans also. Both were received with a storm of shot and shell. Two limber teams, maddened by the noise and pain of wounds, bolted back into the mass, crushing many. The situation was intolerable. Then suddenly from over the valley they caught the notes of the 'retire,' and, except the first four batteries and the 4th Uhlans, they obeyed it; how, Hoenig does not say, but I doubt if they did it at a walk.

Hoenig does not excuse Hartmann, the commanding officer of the Cavalry Division, from blame. His orders were precise, but he should have satisfied himself first that they were possible of execution, and that seems a fair comment.

The batteries of the 14th Division returned to their former place, and had again to 'range' themselves. Had they remained in action, their covering fire might have done much to reduce the losses of their comrades on the other side of the Ravine.

The fate of these merits a few lines of description. The officer commanding the Artillery had ridden on in front to reconnoitre a position, but in their eagerness the batteries had crowded on him too rapidly and had given him no time to look around. Actually the position is so bad for Artillery that, going over the ground two years ago with several decidedly capable British Officers, we simply could not believe that four batteries had ever unlimbered there. With the books and maps in our hands we tried to identify the spot, and came to the conclusion that either they never got there at all or the distribution of the troops, as shown on the map, was utterly incorrect. The books, Hoffbauer and the Prussian Official, state that only the knee-high wall extending parallel to the road from St. Hubert offered any cover. Gnügge's Battery, the 3rd, took advantage of it. The others extended the line to the east, front to the north, *i.e.* Moscow farm, and this brought their flank within 300 yards of the French Infantry in numbers in the farmhouse of Point du Jour. We felt certain there must be some mis-

take, and that at this hour Point du Jour must have been in German hands ; but it was not, and with the fire from this place on their flank and an overpowering enemy in their front, these batteries held their ground and served their guns.

The 1st Light, which stood nearest on the flank, was soon shot to pieces, but as long as a gun could be manned, its captain, Trautmann, lying mortally wounded on the ground, having dragged himself in torture until he could prop himself up against a shattered carriage, directed its fire till his life ebbed out and he sank, a hero, if ever there was one.

The same fate overtook the 2nd Battery. Captain Hasse's orders were sent to him to retire, but, seeing the importance of standing by his comrade on the left, he sent back word that he would rather die than give way. He actually maintained his position for two hours. Then fresh teams were brought up, and as he had fired his last round and those of Trautmann's guns also (it appears they only had their limbers with them), he at length gave the orders to limber up, but all the fresh horses were killed except two, and these eventually brought off a single gun heavily laden with wounded.

Gnügge held out all day. He, too, lost very heavily. It was *some minutes* before his first round was delivered. Then his guns shot so straight that with his comrade Hasse they beat down the enemy's infantry fire—range, about 700 yards. A more extraordinary instance of the power of guns, as guns were then, it would be hard to discover. It more than equals the incident of the eight guns on the Rotherberg, which in a half-hour's duel beat off and compelled a whole French battalion to retreat from their trenches at 600 yards distance only. The 4th Heavy Battery never unlimbered at all. Had its commander got it to the south of the road, its fire against Point du Jour would have been invaluable in relieving the pressure on the flank of the others ; but he lost his head and retired his guns.

The experience of the 4th Uhlans is, perhaps, the most remarkable of all. They had to halt, as the 4th Heavy Battery prevented their deployment ; but they moved off the

road to the southward to clear the way for the following regiment, and whilst there the colonel heard the 'retire' from over the valley—an order he felt it impracticable under the circumstances to carry out. So, the regiment being then in columns of troops, he sounded the 'gallop' and led straight for the quarries to the southward, where he halted and wheeled into line, facing the enemy in Point du Jour at 400 yards only. A slight wave in the ground *half* hid the Cavalry, and here, for a whole hour, this regiment held out whilst the rapid-firing, flat-trajectoried weapon of the French poured out bullets toward them. Then he retired, having meanwhile reconnoitred practicable paths, and taken his wounded with him. In the whole day this regiment lost 3 officers, 49 men, and 101 horses only.

Meanwhile a second, and if anything worse, catastrophe was brewing. The 4th Uhlans were retiring into the ravine, Trautmann's battery had ceased to exist, Hasse had succeeded in withdrawing his last remaining gun, and Gnügge alone remained in action. Some 15,000 Infantry, densely crowded together, still lay to the south of the road and St. Hubert in such appalling confusion that all efforts to rally them proved hopeless; and as the bullets and an occasional shell plunged into them their pluck died out, and they began to dribble away into the ravine by hundreds.

All this took some time—about two hours—but meanwhile other events were taking place in rear, to which I must now return.

The 2nd Corps, 'Fransecky,' was forming up near Rezonville, the 3rd Division already on the ground, the 4th in the act of arrival. This Corps had been assigned to the first Army by headquarters, which had ridden forward to the right rear of the 7th Corps, close to Gravelotte, and here the meeting between the King and Steinmetz took place.

What words passed between them will never be known, the two Staffs remaining a couple of hundred yards away; but, to judge by the King's gestures, Steinmetz had a rather unpleasant five minutes. If he had been difficult to get on with before, he became ten times worse afterwards, and refused to do more than merely transmit the orders received,

without adding the details of execution, which it was his province to supply.

The 3rd Division was now rapidly approaching, brigades in rendezvous formation, bands playing, colours flying. As they descended the gentle slope towards the enemy's position, just above the cleft of the ravine, the sinking sun—it was about 6 P.M.—caught their burnished helmet spikes till the masses glowed like a sea of fire—an apparition not lost on the French.

Le Bœuf and Frossard met at this moment; they were entirely unable to guess at the number approaching, and Frossard considered these newcomers must be the 'Reserve Army under the King of Prussia,' really meaning the third Army under the Crown Prince. Both agreed that something must be done, and that was, to break and defeat the troops immediately before them, if only to save the honour of their arms and gain time for retreat.

Both had used the time which had elapsed since the 'pursuit fiasco' to good purpose. New reserves had been organised, cartridges served out, etc., and the guns which had been driven off the field by the Prussian Artillery were waiting under cover, loaded and limbered up, ready to gallop forward into their old position, from whence they knew the ranges.

Frossard's Corps was the first ready, and, unfortunately for the French, it moved off independently.

Suddenly the front of his line was wrapped in a cloud of smoke, a storm of bullets swept through the air, and the French dashed forward with all their old gallantry and *élan*, from the farms of Leipsic and Moscow.

The exhausted German fighting-line immediately to their front gave way; the French followed, skirting Gnügge's battery at about 100 yards; the latter threw round the trails of his three flank guns and poured case into them as they passed. The Prussian Artillery on the ridge south of Gravelotte woke up, and their shells visibly shook the order of the charge; but still, to the spectators at Gravelotte, it seemed that the French reached and entered the eastern boundary of the wood in the ravine.

Then, suddenly, out of the western edge of the same wood, there burst out a perfect torrent of stragglers—the thousands, literally, who for hours had been collecting in it.

In a wild access of panic they dashed up the steep slope, and on to the front of their batteries; in vain the gunners yelled at them, and threatened to fire on them (but did not); in vain mounted officers threw themselves upon them sword in hand; the mob was mad with terror, not to be denied, and swept through the guns, demoralising all they came in contact with. Here one of the strong points of the Artillery came out. The guns could not move without horses, and the men would not move without the guns; hence, in a few moments the fire was resumed, and as at this moment some fresh troops from Goeben's Corps (the 8th) cut in on the French flank from St. Hubert, the latter were compelled to retreat.

As a fact, they had not actually reached the wood; the Artillery fire, supplemented by that of the really brave men who had rallied at the edge of it, had stopped the rush, and a very slight pressure on their flank had induced their rearward movement.

This was the second panic of the day, but a third one was at this very moment preparing, and curiously, as a result of Goeben's order which had brought the above-mentioned sorely needed support to the flank. Goeben, seeing the 2nd Corps approach, knew that he had no further need for a reserve, and had sent in his last closed troops towards St. Hubert some minutes before the French counter-stroke.

The direction in which they were sent is open to question on tactical grounds. There were far too many troops at St. Hubert already as it was, and with the 2nd Corps on the ridge of Gravelotte a limit was actually placed to the French attack in any case. His reserve was far more urgently required on his northern flank, where for hours a most extraordinary gap had existed, offering a chance to Le Bœuf such as, in the hands of a Napoleon, must have given the victory to the French arms, but of which, unfortunately for them, Le Bœuf did not avail himself.

But, right or wrong, Goeben could not conceivably have anticipated what actually did occur, for it simply passes the

wit of man to imagine such a concatenation of blunders. The 9th Hussars, the divisional regiment, had returned to the reserve, and when this moved off, either with or without orders, it followed in its track along the great road.

The deployment and action of the leading troops against the flank of the French counter-stroke checked the movement of the following Infantry, and the Cavalry regiment as usual tried to force its way past. They were in column of threes; soon the block became absolute, and to reduce the height of the target the officer commanding the 9th Hussars ordered the men to dismount, which they did.

As if things were not already bad enough for the Germans, fortune ordained yet another cause of perplexity. At this very moment the reserve men and horses of the Hussars, coming straight from Germany, arrived on the scene. They had found the last halting-place of their regiment, had been there rapidly told off into a fifth squadron, and had immediately moved off in its wake.

Their horses were only half-broken to fire, the men even less trained, and in a few minutes both became exceedingly unsteady in the roar of the fire re-echoing from the woods and the crash of the bursting shells.

The Colonel in front knew nothing of this reinforcement, and presently, finding all possibility of an advance at an end, he decided to get out of it far enough to give the Infantry room.

Having mounted the men, he sounded 'threes, about,' that fatal signal; then 'walk, march.' 'Threes, about,' was obeyed with unanimity, but the untrained horses being now at the head of the column, quickened the pace. The Colonel, having retired as far as he wanted to, then sounded 'front,' and was obeyed by the first three and part of the fourth squadron; but the fifth never heard the 'front' at all, or, if they did, mistook it for the gallop, for at that moment they broke clean away and dashed back in wildest confusion up the road. The led horses and teams in the streets of Gravelotte took fright, panic seized on most of the men, and the next moment a horde of men, horses, teams, etc., streamed out of the end of the village and made for the

setting sun. Officers of every rank rode at them with their swords and used them, but were swept away also, and not 200 yards away the King and Staff were spectators of the disaster. Fortunately for the Germans, the French were in no condition to take advantage of this disorder, even if they saw it. The Prussian gunners were still in action, and fairly swept everything away before them, even with their old-fashioned common shell and percussion fuses, and we may pause to ask what chance would any existing troops have against modern shrapnel under similar circumstances.

A lull now took place for a while, but the King's blood was up, as indeed was everyone else's excepting Moltke's. The King now ordered Steinmetz to attack with everything he could lay hands on. Moltke endeavoured to dissuade him, but in vain. Having said all he could, Moltke fell away a couple of hundred yards or so and found some other business to attend to. This is historical, and deserves to be remembered, for Moltke in his recent history of the War has deliberately taken the blame on his own shoulders to save the King's prestige, but there were many witnesses to the scene, and Hoenig vows they can corroborate his statements. Steinmetz, as we have seen, had lost both his head and his temper. He passed on the order as he received it to von Zastrow, 7th Corps, and to Fransecky, the 2nd Corps. The former had never for a moment had his command in hand during the whole day, and now all he could do was to send gallopers to order all they could find to advance, simply, no direction or method being assigned them. Fransecky, who was a first-class man but perfectly strange to the ground, dared not risk a movement through the woods direct against the enemy in the fast-growing darkness (it was now past seven, and in the ravine the light was rapidly failing). He accordingly chose the good old road, the defile so often fatal on this unlucky day, though doing so meant, with regard to the position of his Corps at the moment, moving round the arc of the circle instead of by its chord. The order was given; the troops took ground to their left, wheeled into columns of sections down the road, and with bands playing, King and Staff waiting to receive the Officer's salutes as they passed,

the unfortunate corps moved forward to what should have been, and narrowly escaped being, its doom.

Since its capture at 2 P.M. St. Hubert, and the ground immediately on either side of it, had remained in the hands of the Germans. Fransecky and the Officers with the leading regiments not being acquainted with the country were apparently unaware of this fact. As the first regiment approached the farm of St. Hubert, unable to distinguish the uniforms of the men who held it, and being hit by the bullets meant for the garrison, it was concluded that the French occupied the buildings; the Officers not realising that the fire reaching them, having too high a trajectory, had fallen beyond St. Hubert from the French lines lying between the farms 'Leipzig,' and 'Moscow.'

The attacking Germans, scrambling up the slope from the Ravine, formed front as best they could and opened fire into the backs of their own men. Many of the garrison broke back, overran the head of the advancing column, and created confusion worse confounded. But the bravest men held on to the post, and under their protection order was at last re-established, after long delay.

We must return for a moment to the events that had been taking place south of the road, about the great quarries, just before the 2nd Corps began its advance. These quarries, properly utilised, were the key to the French position, lying as they did but some 400 yards from Point du Jour, and affording ready-made cover for a whole Division to form under. They had been captured once by the Germans some hours before, but the French counter-stroke had forced them out of it, and the latter had held on to them with grim determination. Shortly before the 2nd Corps moved off, the isolated companies of the Germans, on the initiative of the leaders on the spot, had again succeeded in rushing them, and again the French from Point du Jour made desperate and repeated efforts to reconquer them, with all the better chances of success, for the darkness had now deprived the Germans of the support of their Artillery.

Zastrow meanwhile, as already stated, had been sending Officers to order whatever they could find to advance, and

fortunately they only found four out of ten battalions. These were just now emerging from the wood in rear of the defenders of the quarries, when the French made an unusually vigorous rush for their front.

The fresh battalions, receiving a heavy fire and knowing nothing of the presence of their own men in front of them, rushed forward and poured a heavy fire into the backs of their comrades, and one must do honour to the courage these displayed. They were the survivors of the fittest, weeded out by a process of selection, that had endured for hours, and no man left his post, but hung on and mowed down the French at their very muzzles. Then, as the fire from the rear still continued, Officers and volunteers walked bravely back in the teeth of their own men's fire, and at length succeeded in stopping it.

It was now pitch dark, the 'cease fire' had been sounded all along the Prussian Line and accepted, curiously and very fortunately for the Germans, by the French (it is the same in both Armies), for the former were now about to put the finishing stroke to their day's work of blunders and expose themselves to what should have been absolute destruction. It is difficult within my space to disentangle what actually took place. Hoenig takes pages to narrate it, and I have but sentences in which to dispose of it. Briefly, when the troops coming up the road fired into the backs of their comrades, and a part of the latter broke back, hopeless confusion ensued at the head of the columns. The troops in rear, mad to get forward, pressed hard on those in front, and actually, thanks to their close order and excellent discipline, managed to force their way through as formed bodies, and then attacked outwards in all directions, only to be beaten back again. Again there was a lull in the fight, and it seems to have been about this time that the 'cease fire' was sounded. Fransecky, his two divisional commanders and their staffs, were at St. Hubert. They decided that something more must be done, and ordered the Fourth Division forward. At the time it was so dark that the troops had literally to grope their way across. The leading battalions were brought to a stand by the darkness and formed in close column, and by degrees the others formed on

them, so that by about 10.30 P.M. twenty-four fresh battalions were massed beyond St. Hubert, on a space of 1,300 yards front and 900 yards depth. 'How, nobody can now say,' and about these had aggregated the débris of fifty-nine companies of the 8th Corps and twenty-two companies of the 7th, so that towards 11 P.M. forty-eight battalions stood like sheep in a pen on a space of about 1,650 yards front by 1,100 deep, and not 300 yards from the enemy's muzzles.

'Surely,' as Hoenig says, 'military history contains no parallel case. Why had one brought these masses together? To attack; but then, in the name of all things reasonable, why did they not attack? The answer may perhaps be given by those who understand the *moral* of troops. Why did not at least these twenty-four fresh Pomeranian battalions go straight for the enemy without a shot? One hears so much of "dash" and "resolution," of an "advance with the bayonet," of the advantages of a "night attack." Here lay all the conditions for success in such adventures ready to hand; the enemy not 300 yards away, the troops massed, and the dreaded fire-swept zone behind. If, as the troops actually did, it was possible to remain in this dense mass from 11 P.M. to 6 next morning, and always under a certain amount of fire—for from time to time the musketry blazed up anew—then why could not we go forward with drums beating, and overrun the enemy with cold steel? Three minutes were all that were required, and we should have lost fewer in those three minutes than we actually did in those seven hours. Why? The answer is plain, and I will give it: simply because we did not understand what fighting means; the whole course of the day shows it. We did not understand either skirmishing tactics or the employment of lines and columns, and the climax of the day was the bankruptcy declaration of our tactical experts. The spirit was there—that was proved by our seven hours' endurance in this position—but it is not enough merely that the spirit should be there; one must also understand how to use it.'

Turn now to the losses, remembering that it is on the 'terrible losses due to the breech-loading arms' that the intrenched-camp schools base their main argument. The

three corps, in round numbers 90,000 men, engaged on this flank by the Germans lost 267 officers and 5,128 men, or 5·5 per cent. These losses were certainly very unequally divided. Individual companies doubtless suffered more severely, but this was certainly due to indifferent handling—firing into each other's backs, for instance. It is noteworthy that the 32nd Brigade, the only one which delivered a united attack in the whole action, lost only 2½ per cent.; and in the 7th Corps only two regiments, the 39th and 73rd, had losses worth speaking of, viz. the former 4 officers and 124 men, the latter 3 officers and 164 men, out of some 3,000 each. Certainly these figures do not justify the German failures, and even if one doubles them, to allow for mechanical improvements since effected in Infantry weapons, well-disciplined troops would require a better excuse than this for failing to carry a position.

It may be objected that the above is only the personal expression of opinion of one officer, and may perhaps be exceedingly biased; but this is by no means the case. Though not much confirmation will be found in the works of popular historians, a good deal exists in more technical works, and still more can be accumulated orally by those who have lived on intimate terms with German officers. Still, to strengthen my case, I give here a short extract from Meckel's 'Tactics,' undoubtedly the leading work in the German or any other language. Summarising the conduct of attack operations by the German Army in the first half of the War, he says:—

'The beat of the drum went before the thunder of the guns, and our power shattered before the fire of his unshaken Infantry. Woods, hollows, and villages were filled with stragglers, and the open fields lay tenanted only by the dead and dying, victims of our premature violence.'

All this, it must be remembered, took place under the immediate eyes of the King, of Moltke, of Steinmetz, and of Zastrow, almost the only four men in that army who had ever seen really serious fighting in the pre-breechloader period, and consequently possessed a standard of comparison by which to gauge the merit of these combatants; and this fact will,

I think, serve to explain the revulsion towards extreme accuracy and smartness on the drill grounds, which presently set in throughout the whole Army, which in my experience has gone on steadily increasing ever since.

Contrasting the above evidence with the record of our own men at Waterloo, there is evidently a very marked difference in the way the men rose to the occasions in the two Armies.

If at Woerth [1] the magnitude of the issue was less apparent than at Waterloo, that could hardly be said of Gravelotte, where fighting, with front reversed, the Germans must have been conscious of the tremendous consequences defeat might involve, and neither at Woerth nor Gravelotte were the visible consequences of the enemy's fire, *i.e.* the appeal to the imagination of the men, at all comparable to what it had been in our case at Waterloo, for whereas at the latter some 40,000 killed and wounded were distributed over about two square miles, at the former about the same numbers were scattered over twenty.

Our Army, too, had to endure the demoralising influence of seeing the greater portion of their Allies quit the field in a panic flight, most of the heaviest losses had to be endured whilst lying down with no enemy in sight, and, composed as they were very largely of recruits and militiamen, they were hardly comparable as a sample of the intelligence of the race to those the Germans in 1870 were able to put in the field.

Now the King's German Legion, raised, trained, and disciplined under the same conditions as our own, proved themselves both at Waterloo and throughout the Peninsula equally reliable, and the inference seems to me clear that the 'system' is of more importance than 'nationality' in determining the quality of the troops.

If the theory M. le Bon has put forward to explain the conduct of crowds is correct, this result is exactly what one would anticipate, particularly at moments of greatest peril when the actual primeval instincts of the men are aroused; for however great the temporary inducements to enlist (such

[1] Meckel's description in the *Sommernachts Traum* is generally identified with Woerth—see also Kunz's *Kriegsgeschichtliche Beispiele, The Fighting on the Niederwald, Attacks on Froeschweiler.* Compare also Bonnal's *Froeschweiler.*

as certain food and clothing to a starving man) may appear, the fact still remains that a man must in his heart have the instincts of a soldier before he voluntarily renounces his freedom of action for a prolonged period. The actual dread of starvation does not press hardly on the class who come forward to enlist, for at their age, with their physique, they can generally manage to pick up odd jobs sufficient to support them—but the unknown possibilities and risks of a soldier's life loom before them on a far larger scale than the actual facts warrant, and there is always the opposition of friends and relatives to be overcome. Moreover, the formalities and inspections to be undergone are not attractive to the would-be young soldier, and I am convinced that we do not as Officers nearly appreciate at their true value the persistence of character of which each recruit who finally reaches the depôt has given proof in undergoing all the tests to which he is subjected. That these men when subsequently questioned often admit that starvation drove them into the ranks, appears to me of little importance, for few possess the education and command of language necessary to analyse their own motives with sufficient exactitude. What really does seem to me conclusive is that in spite of all the opposition they encounter in their progress to the barrack-room, their determination is so far fixed that they never perceive the many alternatives awaiting them. If they are as unfortunately situated as from their confessions it would appear, then they must know all about the free and easy conditions of the average doss-house, and the man who nevertheless prefers the cleanliness and restraint of a barrack-room, together with all its unknown terrors, is distinctly a man with possibilities worth developing. We are all of us in after-life proud of our associations with our public schools; with Sandhurst, or Woolwich, or the Universities, as the case may be—but how many can truthfully maintain that the journey down to join either was an ordeal we enjoyed? Were there not moments, with all of us, when we would have cheerfully turned our backs upon them if we had only been allowed any voice in the matter?

Even if a few actually do reach the Army without any marked predilection for the life before them, they are still

at a most impressionable age, and they come under the influence of several hundred wills, from whence by degrees the discontented have been eliminated (whether by desertion or court-martial does not signify—they have gone), and one's own experience as a young man must demonstrate to conviction that no man can escape the influence of his surroundings. Moreover, our system being voluntary, it is everyone's wish to make the newcomer's life as pleasant to him as possible, and no one has any personal interest to cause him to make it otherwise than agreeable. Of course, some youngsters do get bullied in the ranks—this is the case at a school, college, or mess, indeed everywhere where men, or women for that matter, are congregated together for the performance of a common task; but there is this essential distinction between barrack life and civilian employment—no one has any monetary interest in harassing the newcomer. As he rises, the competition for survival undoubtedly makes itself felt, but he is never considered an interloper or a blackleg, and no drill-sergeant's dinner depends upon the excellence of his work. Where a foreman *must sack* a dull or incapable workman or *go himself*, the Non-Commissioned Officers have to endure the recruit's stupidity as best they may, and, to their honour be it said, the tact and good temper they uniformly display are literally beyond praise. When at last human nature asserts itself and offences take place, it is not before an irate employer, touched in his tenderest corner—his pocket—that the culprit has to appear, but before his Officers, whose only aim it is to see that he gets a fair hearing for anything he may have to urge in his defence. I have often seen a witness or prisoner cruelly browbeaten and insulted in a civil court, but, though I have sat on many courts-martial—some on serious charges—I have never seen any soldier, even a most hardened old sinner, receive anything but consideration from a Military Court.

The essence of the matter is, that it is so because it must be so. If we attempted to make the soldier's life unbearable, he would simply walk out of the barrack gates—the oath has no significance to an angry man of his class, the chances of apprehension are very small, and the punishment nowadays

for a first offence is simply trivial. In a compulsory Army things are of necessity very different, for compulsion carries with it, as a necessary consequence, a police control of the whole civil population, which makes desertion almost impossible, and the only protection a man receives arises from the common-sense of his Officer, who realises, particularly with mounted Arms, that the men can wreck his reputation if he attempts to overdrive them.

Where compulsion is resorted to under pressure of a great calamity, men bend to it willingly enough, in fact they practically come as volunteers, and a good system soon establishes itself, as I have shown in the case of the German Army; but the pressure of calamity must be the driving force. Where it is absent, results are likely to prove very different, and the present state of the Russian Army is a case in point.

Applied to Great Britain at the present moment, I venture to suggest that they would be worse still, for we have not to deal with a people accustomed to blind obedience for generations, but to the most independent and self-willed race in all the world. This does not imply that they are not law-abiding; on the contrary, they are more amenable to law than any other nation; but essentially these laws were made by themselves to meet conditions obvious in their necessity, ultimately, to all, and nowhere else is it so difficult to enforce any fundamental law which is in opposition to the conviction of the whole people.

Let us apply the principle of compulsion to our existing circumstances, and note the inevitable consequences. A reference to Diagram I. shows that at present, out of some 385,000 men who reach in every year the age at which liability for service is usually held to commence, viz. twenty, upwards of 100,000[1] try to obtain entry into the Regular Army, of whom, roughly, 50 per cent. are rejected on medical grounds.

It is a matter of common knowledge that the average of the recruits who are accepted are in every respect superior to those who join the Militia and the Volunteers.

[1] This is a low estimate. The Recruiting Officers have already rejected two out of three applicants before the doctor sees them, but no figures have, unfortunately, been kept of these rejections.

Yet these men are below the average standard of the race as laid down by the British Association. Those joining the Militia and Volunteers must, therefore, be still smaller.[1]

Compulsion would enable us to select the physical pick of the Nation, which is precisely the portion which does not wish to serve ; hence, the presumption is strong that the majority of men compelled to join the Army would do so unwillingly. Hitherto all detailed schemes for compulsion have been drawn so vaguely that it is difficult to find a tangible one to inquire into, but practically they all propose either an annual contingent of 100,000, with two years' service, or of 200,000 men with one year, and either will land us between the horns of a dilemma, viz. the smaller the contingent the greater the proportion of unwilling men, and the larger the contingent the less the time available for training.

Civilians have an idea, founded on the traditions of the old long-service days, that military discipline is a thing standing quite by itself, a kind of virtue that the recruit receives by the mere act of assuming the King's uniform. An order being given is at once obeyed—hesitation even is inconceivable. What an easy thing it would be to command a Battalion if this was really the case. Actually matters are very different. Practically the sanction of military law rests, just as it does in civil law, on the tacit consent of the great majority, who in the Army have arms in their hands which they know how to use if driven beyond the limit of what they think suitable and proper. What chance would the weak cadres of Non-Commissioned Officers and Officers have of infusing a proper and soldierly disposition into a mass, mostly unwilling, which outnumbers them many times over ? With a two-year system matters would be bad enough—a one-year's term of service I consider absolutely unworkable.

But let us assume the impossible, and grant that, thanks to good will and long-standing tradition, the great majority

[1] I have elsewhere given reasons for not accepting without further inquiry the figures in the above-mentioned report, but substantially it is certain that the physique of those strata of the population who furnish the fewest recruits to the Services is materially better than that of the remainder. See *Journal of the Royal United Service Institution*, special number, 1906.

came to their work determined to make the best of things (as in fact they nowadays do in most Continental armies), there would, however, still remain a fraction of irreconcilables, with the whole of the middle-class political power behind them. Have the Officers who support compulsion any conception of the trouble these men could import into their lives? I have already shown what trouble this class of man can give in the German Army (where the feeling of the bulk of the population is against them, and where the Press can be held in leash far more effectively than with us), and I feel no doubt whatever, that if, at the present time, when the centre of gravity of political power still lies amongst those classes, and those men who, in their own youth, were never brought into contact with the Army, and who entirely fail to realise the changes which have taken place in the last forty years, any measure of compulsion were to be introduced, the maintenance of discipline would cease to be possible. Every case of punishment would be made the subject of a question in the House, Commanding Officers would be held up to execration in every halfpenny paper in the land, and the best type of Officers we possess would be driven to resignation, whilst only the worst, those who will wink at insubordination for the sake of a quiet life, and their share of the loaves and fishes, would consent to retain their positions.

There are in fact three classes of Officers that have to be considered: those who soldier for honour and duty; those who serve for pay which they cannot afford, when middle-aged men, to throw away; and those who join to acquire a social position to which their birth does not entitle them. As long as the balance between the three is carefully adjusted, all may, and often do, make excellent Officers, but the conduct and efficiency of every regiment rests mainly on the former type, principally because they generally possess some share of the art of Command, and because it is well known, and recognised, that they can afford to be independent. The second class in their youth can hardly be distinguished in anything from the first, but as they marry and become more and more dependent on their pay, they shirk responsibility, and the fact soon becomes evident to their subordinates.

The third class, as long as they are in a considerable minority, generally yield to the influence of their surroundings and become excellent Officers, but when in any mess they constitute a majority sufficient to set the tone of the whole, it then needs only a weak Commanding Officer to ruin a Regiment, and make it a danger to the discipline of the whole Army.

Under compulsion the first and third classes would only serve the minimum time necessary to qualify for a Reserve commission, the second alone would remain, and since it is not in itself numerous enough to meet even present requirements, additional inducements, probably in the shape of higher pay, would have to be offered to attract a new type to accept commissions.

Now there is an excellent class of men on which we might draw, and from which, if existing circumstances are maintained, I at least would welcome many as a decided increment of efficiency in the Army. These are the men who furnish the Civil Engineers of all denominations—railway, electrical, mechanical, etc. Undoubtedly amongst these one finds the highest all-round ability and force of character in the whole Empire; but this point has to be noticed. There is nothing to distinguish them outwardly from the class from which the Officers of the Army mostly originate—indeed they generally have brothers and cousins serving either in the Army or Navy—and admitting, as I willingly do, that both the Civil Engineers or Naval Officers, between the ages of thirty to fifty, are markedly superior to the average of the Army, the question arises: 'Is it the difference of system to which they owe their excellence?' Personally I believe that this is the true explanation, for both in the Navy and Civil Engineering danger and responsibility are ever present, and with the latter, excellence of work can be judged in terms of pounds, shillings, and pence. Remove this pressure of responsibility, and would these men do any better than their brothers? Probably if they entered at the same age they would not, but if they could be induced to join some years later, after taking an Engineering degree in any of the great North of England Universities, I believe they would be an invaluable accession to our general efficiency, for they would

bring trained minds exactly of the quality which we at present most require.

It seems to me, however, that it would be far easier to attract them now than under compulsion, hence in the last resort we should be driven to wholesale promotion from the ranks with all the evil consequences to which I have already called attention in the chapter on the French Army. For a time at least they would be worse, as I do not believe that under our existing social arrangements, without the pressure of recent disastrous invasion and internal revolution comparatively recently before our eyes, the aristocracy of Great Britain could be counted on to set the same example of duty to their countrymen as their fellows by right of birth in France have so consistently shown since 1871. People who form their opinions of French society from popular novels and society papers may differ from me, but I venture to asseverate that those who know the real intensity and devotion with which these men have laboured during the past thirty years, will hardly contest my position. It is finer even than the example the Germans have given us, for there they still have an Imperial Court to encourage and reward them, whereas in France they have stood for themselves alone, cheered only by the devotion they have managed to win amongst their immediate subordinates.

If we turn again to the Diagram II. we see that already a considerable majority of the young men who annually attain an age sufficient to qualify them for military service, are willing to join in some branch of our land or sea forces, and that we actually do take in recruits a percentage practically equal to that imposed by law in France or Germany, in both of which countries the ideal aimed at is, not the training of every man—as people who write on compulsion generally assert—but the training of every man who is worth the outlay of time and money needed to convert him into a soldier. The distinction between what is worth training and what is not, is drawn by a physical standard expressed roughly by height and chest measurement, but taking no account whatever of the man's will-power, because there is no known way of estimating it.

Our system practically amounts to this, that we apply a psychic test and disregard (comparatively speaking) the physical standard. And the point is, which is likely to be the best system under the stress of the battlefield—the one which gives a somewhat better average of physical dimensions in the individual, or the one which ensures a far higher 'collective will-power' in the mass? The answer will probably depend on the degree of experience each brings to the question, but I submit that no one who has attempted to investigate the extraordinary power that the human will is capable of exerting upon the body (whether acting individually or merely as a transmitter of the resultant will-power of a crowd) will be in any doubt as to which he would give the preference. If further proof is required, then I would refer my readers to the whole history of the religious movements of the Middle Ages.

CHAPTER XV

THE REGULAR ARMY

In the preceding pages I have endeavoured to establish the following propositions :—

1. That the application of the 'Psychic' as opposed to the 'Physical' test gives us a better raw material to work upon.

2. That sufficient numbers for our needs are actually attracted to the several services, including in this term Navy, Army, Militia, Yeomanry, and Volunteers.

If these are granted, then the ground is clear for the process of readapting our forces to meet the changing stresses that the evolution of the Sciences has thrown upon our existing structure.

The strength of the Regular Army naturally comes first, and this we are all agreed depends primarily upon the estimate we make as to the fighting power necessary to garrison our Indian Empire, and to meet the first shock of possible collision.

Hitherto, owing to the general neglect of tactical and strategical inquiry, the consequence of our want of practical experience in the conduct of a War of 'Masses,' we have always looked upon an Army as composed essentially of Infantry, to which the Cavalry and Artillery act merely as adjuncts. No English writer, to my knowledge, has ever emphasised the fact (almost universally grasped upon the Continent) that the fighting power of an Army is really the *product*, not the *sum*, of the efficiency of the three Arms, and it is to the failure to realise all that this principle involves that so many of our present difficulties are due.

Obviously there can be no fixed proportion of these three Arms, which everywhere and always would give the same product. A force destined for operations in Tirah, for

instance, would need a totally different composition to that which would give the best results on the Vaal River. Hence each case should be considered on its merits, with due regard to the primary conditions which it is held ready to resist.

Now the first purpose for which our Indian garrison exists is to maintain order and tranquillity within that country itself, for the danger there is eternal, and can only be guarded against by the most complete readiness for action, which is economically obtainable. For a War on the Afghan frontier some weeks' warning is always to be counted on, and our ultimate success there depends on factors, external to India, which require time to exert their full powers ; and this time again depends, first of all, on the maintenance within India itself of the most complete subjection to our rule. Hence, even if the measures needed to secure both internal tranquillity and external safety happened to conflict (which fortunately they do not), those necessary for the preservation of tranquillity would have the prior claim on our attention.

For the purpose of maintaining the Peace in India, mobility is by far the most important factor. Not the mobility of large masses, but of small striking bodies, and it is the Cavalry, duly supported by Artillery, which best fulfils the required conditions. Formerly this was not altogether the case. The old muzzle-loading carbines were at a tremendous disadvantage against the long jezails, and primitive firearms of all sorts, that an insurrection always brings to light, and, of course, the sword was almost useless for street fighting. But nowadays, when Cavalry have at last recognised that their first and last duty is to fight (on horseback, sword in hand, if it can, on foot with the rifle, if it must), there is practically nothing in India that could resist the sudden irruption of a Cavalry Brigade and a couple of Batteries, provided always that they strike first, and so paralyse their opponents.

It has been claimed that the railways and telegraphs have added enormously to the mobility of our Infantry in the East, but I submit that, for the express purpose of nipping incipient rebellion in the bud, but little reliance is to be placed on these two factors, for the classes from which danger chiefly threatens are quite sufficiently educated to blow up the one

and cut the other, whereas guns and Cavalry can move anywhere, and the heliograph (which is of no use for the working of railways) enables them to combine the operations of units issuing from several stations with a certainty we were far from attaining in the days of the Mutiny.[1]

Until the time of the Boer War the importance of 'mobility' as a factor of success in War never received the attention it deserves. Though it had long been recognised, by Military thinkers, that the Army which could outmarch its opponents possessed a great advantage, yet the almost uniform composition of European Armies reduced them so nearly to one common level of slowness, that beyond a general reference to the fact that mobility is an advantage, no one seems to have realised, or at any rate to have emphasised sufficiently, the full extent of the superiority which it confers on the troops fortunate enough to possess it.

On the sea, this point has always been more evident. Everyone has always realised that a slow-moving fleet could never bring a faster one to action, if the latter chose to avoid risking a decision, and it was only when I attempted to reason out what should have been our conduct in the South African campaign, that I began to apprehend the magnitude of the principle involved. This drove me to a re-examination of the whole of Military history from the time of Cromwell, the results of which I have embodied in my 'Cavalry: its Past and Future,' and my 'Evolution of Modern Strategy,' which, summarised into the most concise form, amount to this, that the fighting value of an Army varies directly as the square of its velocity. Thus the rate of movement of the Boers being to that of our own troops as three to one, it took a nine-fold superiority in numbers on our part to break down their resistance.

Undoubtedly the exact agreement in this case is a curious coincidence, but if many other instances are analysed, the general accuracy of the conclusion will be admitted.

Hence I deduce that if the marching rate of Infantry (compared with that of Cavalry), under the circumstances,

[1] Wireless telegraphy will prove invaluable in those regions of the plains where the trees interfere with the heliograph or limelight.

and for the distances, likely to present themselves in the special conditions of our Indian Garrisons, be taken as one to three, then, for maintaining the internal tranquillity of that country one Cavalry unit is equal to nine times its number of Infantry soldiers, or as a rough computation, a Cavalry Regiment of 500 sabres is equivalent to a whole Brigade of Infantry.

Of course the idea must not be pushed to extremes. There are certain possibilities in which Cavalry might fail and Infantry succeed, and *vice versâ*, and we cannot take the mean of the two velocities as the rate of marching for mixed forces of all three arms. But I am convinced that if we were to reorganise the strength of our Indian Army of occupation on the basis of reducing the number of Infantry battalions [1] and replacing them at the rate of one Cavalry Regiment, or four Artillery Batteries each, the gain in external striking power, as well as internal police efficiency, would be enormous. Then, since each unit thus created, or abstracted, would carry with it the creation, or abolition, of a corresponding link in England, we should thereby forge the very framework for expansion which is the greatest need of our existing Home Army.

Without access to information which as a private individual I cannot command, I consider that roughly speaking we might safely reduce 24 Infantry Battalions in India, making with their corresponding links at home a total of 48 Battalions, and substitute for them 24 Cavalry Regiments and 96 Batteries, half in India, half at home. This would give us two additional Cavalry Divisions in Europe, and a similar number for our Eastern Army, while the Batteries would suffice for four extra Army Corps, to be employed either in Europe, or elsewhere, as circumstances might dictate.

From this redistribution further enormous advantages to the efficiency of the whole Army would result. The central weakness of our own Organisation (as indeed it is of all others though in a lesser degree), is the enormous preponderance in

[1] To lessen the friction every reduction of units creates, I would call on the Battalions selected for reduction to become Mounted Infantry, retaining all their honours, uniforms, etc. They would then soon evolve themselves into Dragoons.

number of the Infantry Officers over those of the Cavalry and Artillery. Human nature being what it is, this preponderance finds its expression, not only in the excessive proportion of Commands which are held by the Infantry, but generally in a tendency to subordinate all other questions to Infantry opinion, with the result that it is almost impossible to ensure that the three Arms should work together to the best advantage in the field. Not one man in a hundred can shake off the accumulated impressions of perhaps thirty years' experience when he obtains the responsibility of a Command of the three Arms, and hence there never can be an adequate guarantee that such units will either be fought to the best advantage themselves, or combine their efforts harmoniously for the attainment of a common purpose.

Nor can they train their troops to the same degree of proficiency, for normally they will never obtain the same implicit confidence from the other Arms as they receive from their own. Even when as a fact they are perfectly at home with all three and equally qualified to inspect them, their criticisms on those to which they do not belong are invariably tacitly resented by those to whom they are addressed, and are attributed to prejudice, ignorance, or both. I have fought night after night in clubs and mess-rooms in defence of the two all-round men under whom I have been privileged to serve; but in these matters reason is futile, injured *amour propre* alone holds sway.

A well-organised General Staff, together with a system which admitted of the transfer of Officers between the different Arms of the Service (such as exists in Germany), might do much to mitigate this evil. But its ultimate cause lies so deep in human nature that nothing but the creation of conditions which would approximately equalise the representation of the several branches of the Army will suffice to ensure reliable results, and these results are of more importance to the future welfare of the nation than any others as yet before the public.

With a reliable machinery of Command we might win with either conscripts or volunteers. Without it, an element of uncertainty is introduced into all strategic calculations, so great that even Napoleon's genius failed to grapple with it

successfully. A further advantage accruing from my suggested alteration lies in its effect upon the recruiting difficulty, which, without subscribing to the pessimistic opinions current in the daily press, one may, nevertheless, accept as acute. It is not so much the question of numbers which impresses me, as the indisputable fact that, as a race, thanks to the sins of our grandfathers in the old utilitarian days, we do not breed a sufficient number of men with adequate stamina to be economically worth training for the very trying conditions of our semi-tropical service. Teeth are the great trouble, and tea has ruined far too many digestions—see the evidence given before the Royal Commission on Degeneration.

A Cavalry Regiment, or four batteries of Artillery, take rather less than half the number of recruits required for an Infantry battalion, hence in round numbers we should require 6,000 fewer recruits in every year—a number which would enable us to eliminate practically the whole of our present weaklings. This, of course, would correspondingly reduce our Reserves, but the wastage would be less, and, as I have shown above, the fighting power of the whole Regular Army materially superior.

Even at the risk of repetition, it is necessary to reiterate my reasoning. The Cavalry is to an Army what the eyes are to the human body. Without them it is impossible to rely on finding your enemy, and until he is found neither guns nor Infantry are of any importance. The guns are the principal agent in the work of preparation. Thanks to their enormous range, it is possible to execute tactical surprises on a scale for which history affords no parallel, and to converge such a weight of fire on any predetermined point, that the destruction of the enemy's defences becomes simply a question of time.[1] With this power and in proportion as he knows how to use it, a General can cut down the resistance the Infantry will have to encounter to suit his own estimate of their quality (as Napoleon did in the days of the case-shot attack), and all he needs is to gather together numbers, and inspire them with the instinct for fighting necessary to convert their advance into the blind and unreasoning forward

[1] See Diagram VI., fig. 3.

rush of a crowd—a task which I have shown above may be the matter of a moment if the right man is selected to lead. Hence Infantry for the actual assault can, practically speaking, be improvised. No technical knowledge is required in the men. Their excellence, or the reverse, depends on the whole tradition and training of the Nation. But Cavalry and Artillery require prolonged technical training, more so nowadays than when men brought with them into the ranks an inherited tradition of horse-mastership. Thus, to improvise them is impossible, and much greater care and attention require to be devoted to them than was formerly the case.

A further argument for their maintenance in a larger proportion is found in the fact that from a given amount of training a far higher economic return is obtained with them than with the Infantry. For both Cavalry and Artillery work is markedly more dangerous, and danger cultivates character, and the power of accepting responsibility. It is also possible to maintain the men's interest in their daily routine in a far higher degree. A mounted man is always learning, for not even an Archer can exhaust the practice of equitation in seven years, whereas, unless you change the nature of an Infantry soldier's surroundings, he has exhausted the whole field in three years at most, and all else is only repetition, which soon palls on a man without some special incentive to work for, such as promotion, which only appeals to a limited number after all.

It is improbable that these ideas will be pushed to an extreme conclusion—hence the difficulty of recruiting is likely to remain with us, and we shall have to find means to render the service more attractive.

Now, experience shows that those Services—whose men, when leaving the colours, have some form of skilled labour to offer their employers, and hence have little difficulty in obtaining good situations in which they can rise to really highly paid positions—always attract an ample supply of recruits, and can generally pick and choose.

Foremost amongst these come the Royal Engineers—and the reason, of course, is that not only does a man's common sense show him that the opportunities for training afforded

him in his service are all an advantage to him, but the experience of the last fifty years and more has proved convincingly to parents what good results may follow the enlistment of their sons.

Few people even in the Army have any idea how high the ex-Sapper sometimes rises, and I confess the letters and information supplied by the columns of the Regimental Paper the *Sapper* [1] have both surprised and enlightened me.

The best results have been obtained in the Colonies amongst the men who, whether on Survey duty, Convict establishments, etc., saw their opportunities and after their discharge made the most of them.

We cannot make the whole Army Sappers—but we can at least largely approximate the training of our Infantry to that of the Royal Engineers, indeed we are already doing so to a considerable extent—and we can afford to give large bodies of the Infantry similar advantages to those which the Sapper has so ably seized, by training him in the Colonies instead of at home.

At this moment Imperial sentiment is ripe for such a change of policy, and though it would entail an immediate outlay for barrack accommodation, I believe it would in the near future not only prove a remunerative investment, but repay us an hundredfold by the formation of yet stronger and far more numerous ties between Great Britain and her Colonies.

Briefly I propose to train our home battalions and some of our cavalry Regiments in the North-West of Canada, in New Zealand and Australia, replacing them in England by

[1] In the *Sapper* for December 1900, I find a case of an ex-Sapper with two sons and eight grandsons in the Corps—and this is not exceptional. I know another instance of seven brothers in the Royal Engineers, all now holding commissioned rank.

The Corps has also given from the ranks a Prime Minister to British Columbia; another ex-Corporal is a leading geological expert to the Canadian Government.

At home, an ex-Corporal of S.M. Miners, still a young man, is drawing a salary of 1,500*l.* a year as Manager of the Birmingham Municipal Electric Lighting Works.

These are only a few instances picked out at random from half a dozen back numbers of the paper.

battalions raised in the Colonies to be trained at Aldershot and Salisbury. New Zealand and Australia may perhaps wait—I have not studied their capacities in sufficient detail to express an opinion—but it is evident what an advantage it would be to have a reserve of trained troops close to India with communications which run no practical risk of interception until the great struggle for naval supremacy has been fought out and lost by us.

The case of Canada is far more urgent. We must recognise definitely that, of all extra-European difficulties with which we have to reckon, our position in North America is far the most dangerous, and, though Sea Power in the end will decide the struggle, obvious unreadiness on land is the surest way to precipitate it.

To meet this danger I should propose to maintain two Divisions of Infantry, one of Cavalry, and a proportionate force of Artillery and Engineers, ostensibly for training purposes, on the strip of territory from Port Arthur to Lake Winnipeg, so as to cover what in the event of War will be our back entrance for several months of the year to our principal granary and food depôt—viz. a line of communications down the Nelson River,[1] across Hudson's Bay and thence to Liverpool—a track too far northward to be within range of attack by destroyers or any small craft which may escape our blockaders.

The belt of land indicated forms the neck of our communications from East to West, and could be assailed, with large chances of success, by a raid across Lake Superior, for which purpose an ample supply of shipping now exists in American ports; and as we have no Warships upon the Lakes in Peace, the attempt to move them there in War time along (and almost within range of) the enemy's frontier is not likely to prove successful.

There is a further advantage which should lead to the selection of this particular tract of country as a location for

[1] Port Churchill is a more favourable harbour, and communication with the Nelson River could be opened up through a chain of convenient lakes, for a very low cost. The navigation of Hudson's Straits is open normally from July to the end of October.

troops in Peace—though many others further to the North-West are superior in the advantages for the actual training of troops for War.

Port Arthur on Lake Superior is the head of the inland water communications of Canada, and, as competition in the supply of bulky cargoes increases, the burden of trade is certain to adopt the cheaper waterway; for whereas the carrying power of even a double line of rail is limited by narrow boundaries to which the Canadian Pacific have already closely approximated, the capacity of economical transport by water is still capable of very considerable improvement. As the great resources of the North-West are developed, Port Arthur will become almost another Liverpool, and the land between it and Lake Winnipeg must increase enormously in value.

The presence there of some 20,000 troops would attract settlers of all trades to meet their demands, and it would pay the Canadian Government to give the troops working pay to open up the district for them.

If it is worth the while of the Canadian Government to pay the casual settler, in land, in return for his labour in clearing it, and the small addition to trade his presence brings with it, how much more would it be worth their while to remunerate the collective labour of say 20,000 men all ably directed to a common end?

If it is urged that such employment would interfere with the training of the men as soldiers, the reply is that the capacity for hard continuous labour is quite as essential for soldiers as marching power. If it is further objected that the prospect of hard work will react unfavourably on the recruiting market, the answer is that all depends on the nature and conditions under which hard work is exacted, and camp life in a Canadian summer, when men are in the prime of physical condition, will certainly not deter the class of man we wish to obtain from enlisting. Our men do not like idleness—they infinitely prefer work, the object of which they can understand—and since they cannot understand the higher psychical standpoint on which the efficacy of continuous drill-ground training is based, we have, in order to

get the best out of them, to humour them into absorbing the drill without perceiving the process.

Officers accustomed to handling large working parties would find no difficulty in maintaining the interest for a few months in every year in such work as felling trees, building bridges, making huts, roads, water supply, etc., and after a couple of years the battalions would move along Westward towards India, where they would arrive with unimpaired health and vigour, and with a training for the rough work of the Indian frontier that nothing could excel.

At home our troops are hampered at every turn by private rights and vested interests—we all dig in a single field and have to fill up our work before we leave it; as for felling a tree, such a thing is unheard of. In India we are killed by medical kindness—we must not stay out in the sun after 8 A.M., or go out before 5 P.M., for months at a time, and in very hot weather I have often seen Infantry Battalions marched out for a couple of miles without arms like charity school boys, for fear a couple of sickly men might break down under the weight of a ten-pound rifle, and thus spoil the health statistics of the P.M.O.

But we want men who can both dig and work on roads and communications far oftener than we need them before an enemy, and if they have had their back muscles strengthened, and their hands hardened by a six months' course of digging road trenches three feet by five feet, they will find no great difficulty in throwing out five feet by three feet sections of siege or shelter trenches.

The average press correspondent appears to imagine that there is some occult mystery which differentiates the excavation of shelter trenches from ordinary digging. This is purely imaginary. To make a shelter trench an Officer tells a man where to dig and gives him his dimensions to work to—all the man has to do is to throw out the dirt as quickly as possible, and this he can learn to do quite as well on road or railway work as in the 'Potter's Field' at Woolwich or Aldershot.

This seems to me the only feasible way of teaching a man in the Army to earn his living when he has left it. With

the introduction of labour-saving machinery the value of manual skill and dexterity is everywhere declining, except in a few special trades from which we never derive any recruits, and under no circumstances is it possible to give strictly technical education to men in the ranks through the medium of regimental workshops, for either the men spoil all the raw material (which somebody has to pay for), or they compete successfully with civil labour, in which case the trades concerned immediately bring pressure upon their parliamentary representative to put a stop to their undertakings. Who does not remember the soda-water machine question in India and elsewhere?

The most we can do is to give a man the chance of developing his physique to the utmost, while at the same time forming his character. To habituate him to hard continuous labour with his hands and muscles, providing for him, at the same time, a field of industry wherein he can always find a reasonable competence and a comfortable home, to the defence of which he can, if necessary, contribute his services as a trained soldier, will be of incalculable value both to him and to the Empire at large.

Perhaps the most striking lesson of the Boer War has been the comparative uselessness of our Reserves at home when their services were urgently needed abroad; and this will apply to any War, for whatever happens we shall always have as many trained men in the country as we can possibly need if only organisation is attended to in time.

The solution of this latter problem is the corollary of the preceding one, and I suggest that this colonial training detailed above can be made with private regimental assistance to meet both demands.

Our men, after their two years in Canada, would pass on to India—many carrying with them memories the reverse of bitter of the time they have just spent; memories which would acquire additional sweetness in contrast with the heat and suffering which four years of India must always entail.

Then comes for many the bitter disappointment of the return to English civilian life, its miserable limitations and narrow prejudices.

The man finds his place in the Old Country's mechanism is filled up, his friends full only of their own concerns, and if his heart does not then go out to those two years of his healthy enjoyable existence in the Land of Streams and Forests, where a niche has been formed for and awaits him, he must be very singularly constituted indeed.

To meet his need, I propose to form in every regiment, mainly by private effort, an Oversea Colony to which the Reserve soldier can be assisted to proceed and settle down.

In each Battalion, as it passed through westward, we may feel certain that one or more Officers will be found who would interest themselves in the scheme, or who would induce retired Officers, of whom so many already possess ties in Canada, to come out, and with the assistance of the Government Officers (which I understand would be gladly given), to locate a suitable site, and, as the men came out, to supervise its development—it might well at the outset be placed on ground the Battalion itself had originally cleared.

As a first step, an encampment would be formed, and the men as they arrived would construct quarters, offices, messrooms, and canteens, the nucleus of a future Reserve Battalion Headquarters which would consist of the local Volunteers or Militia stiffened by the backbone the trained regular soldiers would eventually impart.

Each Headquarters, thus formed, would receive from the Canadian Government the usual acreage per head allowed for desirable settlers for the estimated total for a certain term of years, together with a certain margin in return for the services which these trained soldiers would be prepared to render.

A certain amount of capital, to be raised regimentally with County assistance, would be needed at the outset to start and provide for the arrivals during their first year, and the manner of repayment would be as follows:

An arrangement would be made, with a first-class Assurance Company, to insure the lives of the settlers for the amount owing by them to the Regimental Association advancing the capital, so that in the event of death, the allotment of land and all improvement effected on it will

remain as a provision for the family, free from all debt, and the Regiment will be repaid for land and all advances by the Assurance Office, thereby providing against the contingency of loss that might arise before the settler had repaid the money advanced to him.[1]

Thus in a few years each settler or his family would become freeholders and the Regimental Association self-supporting.

In this manner, in a few years' time, every regiment would have evolved a home—where men and their families would find familiar faces and surroundings—thus the first great danger in a settler's life, the breakdown through the utter strangeness and loneliness of the life, a danger greater in the case of soldiers accustomed to living in a crowd, would be eliminated.

The man could come and go as he pleased, for his share in the property would always possess a marketable value, but his daily labour would always be worth paying for since it could be directed to a definite purpose in a prearranged scheme; and if he were bent on changing his quarters he would at least have the advantage of the advice of competent men on the spot, to whom through long association he had learnt to look up, and in whose absolute disinterestedness he would know he could trust.

In process of time the settlement would exercise its usual influence, and the value of land would go up; people would willingly gather round the attractions of a regimental band and the usual entertainments, and the regimental festivals, 'Minden Day,' 'Waterloo Day,' and so forth, would bring in all the old faces from a distance.

If, as far as possible, local sources were appealed to for the supply of the regimental requirements of the troops still passing through their training, home industries would be created which would find employment for the wives and

[1] The full details of this scheme have been worked out by Mr. Colley Bromfield, himself, a skilled accountant, and for many years the manager of a great insurance office. It affords an absolute security, and would return a fair 4 per cent. to the Regimental Association. His pamphlet has only been printed for private circulation, but Mr. Bromfield has authorised me to make use of his idea.

families, and when once, in every fifteen years or so, the parent Regiment came through, the welcome it would receive would forge yet more firmly the links in the chain of home ties and affections.

And what of the recruits we should obtain from the sons of men whose whole life has been spent amongst regimental surroundings? As soon as they could carry a toy musket they would have been formed into cadet companies, and no celebration of 'Empire Day' would have been complete without their 'march past.' We know what splendid soldiers our old regimental boys have always turned out, even under their often squalid and disheartening surroundings—imagine what these would be brought up in the healthiest climate, amongst good influences, and steeped in true territorial *esprit de corps*!

I have made myself acquainted with the history of almost all previous attemps at military colonisation, and also with all that has been achieved by such undertakings as Dr. Barnardo's, and the homes promised by the Salvation Army, but this scheme has elements of success which none of the others possessed. We have men of suitable age, and trained for the special purposes of colonisation—this was not the case with the old soldiers of thirty to forty years ago. We take no wastrels, or subjects for nervous specialists, and the children are free from the pauper taint.

If it is objected that this would deplete the Reserves at home—it would only be necessary to allow the intending emigrant to find a substitute, medically fit, from the ex-reserve to take his place—but the man being on the spot where danger first threatens would be of more use than he would be in England. If England itself were threatened he could always go back with the troops which Canada would, in such an emergency, gladly raise, and dispatch to the seat of War.

As to the numbers such a plan would attract to Canada, it is not likely that more than 20 per cent. would come forward as colonists, or even prove suitable for the work. But taking the average at 10 per cent. only of the 10,000 annually passing through Canada, then, since the men would

be about twenty-five years of age on quitting the colours, and capable of say twenty-five[1] years' further service, this would give an addition to Canadian strength of about 25,000 men when the scheme was in full working order. But 25,000 men would suffice to double the value of at least 100 battalions, which would be the measure of the gain to her fighting strength—and of course the same method would apply to Cavalry, Gunners, and Sappers.

With reference to the proposal that Canadian and Colonial units should train in England, difficulties might arise, particularly with regard to rates of pay; but whether these prove insuperable or not, the fact that the training of twenty-four battalions abroad would deplete our home garrison ought not to suffice to condemn the scheme.

The difficulty can be met by a redistribution of the units on the lines already indicated in discussing the dangers of a French raid.

We should still retain fifty-one battalions at home, and as each regiment left for Canada we could embody its corresponding Militia Battalion. Thus as the turn for Canadian service would come round every fifteen years, about, each Militia unit would get a thorough mobilisation, together with a year's training, which would certainly tend to the efficiency of the whole, and quiet the outcry against the want of appreciation of the old Constitutional force.

There now remain the details for the organisation of the great fighting force we shall need to set on foot in the event of a European struggle.

The first step would be to resurrect the late Colonel Home's Eight Army Corps scheme; adding two more to be formed out of the troops detailed for the defence of proposed lines from Billinghurst to Tunbridge Wells.

Some of the blanks in the original scheme to be filled by the new units of Cavalry and Artillery, which require to be

[1] Statisticians calculate the capitalised value of a man's services at 250*l.*; this is probably a low average. As a striking illustration of the rise in value which may attend settlement in new countries, take the case of Colorado; in 1858 a group of 200 persons settled there. The Census of 1890 shows property worth 239 millions sterling. Parts of the North-West Provinces of Canada are potentially equally rich.

made up in order to relieve the nine Cavalry and twenty-seven batteries proposed for India.

Officers and Staff to be appointed to the several regions, and supplemented from the Reserve of Officers.

Other units required to complete it could be arranged for at the outbreak of hostilities—they would not be needed for several months.

The precedent created by the late successful raising of Royal Reserve Battalions should be extended, and a short Act drafted rendering all ex-Reserve men liable to further service 'across the Narrow Seas' up to the age of forty-five.

As I have pointed out above, it is unlikely that legal compulsion would be needed—actual compulsion by circumstances would probably suffice—but it would be as well to have the Act ready to be made Law if the conditions demanded it.

This would give us, it is calculated, nearly a quarter of a million men ;[1] and there are, at least, 60,000 more ex-soldiers under sixty who could be employed in the training of the Home battalions of volunteers.

Thus we should at once obtain sufficient trained men for the ten Corps proposed, with enough over to form depôts for duplicating each unit for Home defence purposes, exclusive of the Militia and Volunteers already in existence.

The new units would be formed into Line troops for service on the Continent of Europe, by volunteers from the Volunteers and Militia, stiffened by ex-Reserve men, but all serving under the same conditions, no caste distinctions being allowed, as during the Boer War, and in six months' time, under Active Service pressure, these new units should attain a very high average of efficiency.

Then, as the stream of recruits still continued, each unit would again evolve a depôt, which would be expanded to a complete unit, and the pick of the men be moved up into the fighting Army. The principle being that in the Army destined for service across the seas there should be no distinction of status, but each unit should grow out of the

[1] According to W. D. return, in December 1897 there were 407,734 men in the country who had served in the Army, exclusive of Reserves at that date.

one preceding it, and naturally inheriting its traditions and backbone.[1]

The solution is not altogether an ideal one, but it is submitted as the best obtainable, without universal compulsory service, which enables one to call a whole Nation to arms on a given day.

Take the case of a single battalion—with an effective of say 800 men. No recruits need be left behind, as they would all have nearly a year's service before, by any possibility, the sea would be open either to ourselves or the enemy. Two hundred Reservists would suffice to reinforce it, and the remainder, with a sprinkling of ex-Reservists, would form a 2nd Battalion at once. A third would be formed of ex-Reservists, about 50 per cent., together with 50 per cent. Militia or Volunteers; and a fourth with 25 per cent. ex-Reserve, 25 per cent. fresh recruits of suitable age, 50 per cent. Militia or Volunteers. A fifth might then be formed with pensioners, recruits, Militia, or Volunteers, and so on, until the original battalion's share of the two or three millions we shall have to enrol to deplete the labour market is all absorbed; and each battalion thus formed would possess some men, at least, who had seen service in the old Regiment, and who knew the County and its people, and all would be led by Line officers accustomed to the traditions of the Service, and *habituated to obey*.

The first three battalions would in six months' time be the equals, and more than the equals, of any troops in Europe, and the remainder would possess a greater potential of military quality than any of the original formations (not the Regular Army) of the United States troops when these were first put together; for literally no such material existed in the States at the outbreak of the Civil War as we possess at the present moment. I am well aware of the work that would have to be done, and the insuperable difficulties which may be foreseen in Peace, but I take my stand on the principles of human nature acting under War pressure; and if the Nation deserves

[1] *Marwitz's Diary* is the best evidence for the Prussian case—for the American there is hardly a work on the War which does not dwell on the evils of new formations not growing out of a nucleus supplied by the parent stem.

a continuous existence we shall find the men to grapple with the difficulties and to merge their personal feelings for the greater good of the Commonwealth.

My plan means that Volunteer and Militia units shall not take the field across the Channel under their own Officers, and I realise how this will be resented, but the interests of individuals must give way to the good of the State, and that good requires that the senior Officers of the Army must all have been brought in through the same school, for in no other manner can harmonious co-operation be guaranteed. Volunteer Officers have frequently given proof of great capacity—I am well aware of that—but their individuality has not been subjected to the same process of attrition, and orders would always have to be framed to suit their personal equation. What that implies students of the American Civil War and of the histories of Chanzy's, Faidherbe's, and Bourbaki's Armies in 1870–71 know only too well. It is not the knowledge of War derived from deep study that is required in Battalion Commanders, but that ingrained knowledge of a highly specialised type of human nature which can only be gained by years of constant association.

There are three historical precedents for my proposal which deserve closer attention than they have yet received in this country, viz. the evolution of the great Army which alone made possible Napoleon's most brilliant career, the reformation of the Prussian Cavalry from 1807 to 1815, and the growth of the Armies of the Union from 1862 to 1865.

The former was uniformly unsuccessful until, by the reforms effected by the decree of January 1796, the Line troops and Volunteers were fused into one homogeneous body, with no caste or distinctions of any kind, after which, not before, it swept Europe from the Riviera to Moscow; its ultimate decline being due to causes outside the scope of this chapter, the two latter falling far short of expectations, because in both, whether by pressure of circumstances or design is immaterial, the principle of new formations was adopted.

Our resources in men trained in the Regular Army in England amount to approximately 180,000 men with the

colours, 100,000 reserve, 250,000 ex-reserve under forty-five, and about 60,000 pensioners and ex-reserves still capable of doing garrison duty, giving a total of 510,000 men.

Of Militia there are probably 200,000 still fit for duty under forty-five, including those returned to their homes.

Of Volunteers there were 264,000 efficients last year, and probably of those who have passed through the ranks about a million are still fit to bear arms, of which three-quarters are still in the prime of life, under forty. To form a field Army of twenty Corps we should require 500,000 Infantry, which, at the rate of four guns per thousand, would require $\frac{4}{6} \times 500 = 333$ batteries of Field Artillery and howitzers. Of Cavalry four regiments per Corps would suffice with five independent Cavalry Divisions of nine regiments each, or a total of 125 regiments.

It is evident that we could complete the Infantry without drawing on the Militia and Volunteers for more than 100,000 men, nor would there be any difficulty in finding men for the Field Batteries by the old expedient of converting Garrison Companies into Field Artillery; a man once trained as a gunner needs very little time to accustom him to a new weapon, and the places of Garrison Companies could be taken in a few weeks by either Volunteers or Militia.

As for the Cavalry, with our lines of communication open to Canada and Australia, there should be no difficulty in obtaining the balance of men and horses we might need, and from my knowledge of Australian horsemanship I believe that with six months' training and drilling they would become the equals of any Cavalry in Europe, and it would only be from the men of the independent Cavalry Divisions that first class horsemanship would be required. The Divisional and Corps Cavalry duties could be met by Mounted Infantry; the waste would be great, but for that reason I have allowed a Regiment to each Division and one to the Corps details.

Into the details for Engineers it is unnecessary to enter—the Volunteers form an adequate reserve. Transport of course would have to be practically created, but waggons, horses, motors, and traction engines should be registered

on a wider scale than at present, and in six months an enormous number could be turned out by our private firms.

If this Field Force is not enough—whether regarded from the strictly military point of view, viz. active intervention on the continent of Europe, or from the economic standpoint, viz. the relief of the congested labour market—in another six months we can double the Field Army again and still have men enough left for home defence in the ranks of the Militia and Volunteers, for on the basis of French Army statistics, and allowing the same legal exemptions, we have at least four million able-bodied men of an age to bear arms effectively in the country, exclusive of what help the Colonies could afford us.

The action of the principle advocated would practically be self-adjusting. The greater the pressure of the struggle and the suffering involved, the more readily would men press forward for pay, and provision for their wives and families on Government security, and the more briskly would money be circulated; whilst, if the pressure was not keenly felt, we could stand the strain all the better, and time will always fight on the side of sea power.

Is the task within the limits of our National Administrators' capacity? If we have benefited by free institutions to the extent usually imagined, there can be very little doubt of it. If in 1870 the French Republic, created in the moment of defeat, with its Capital closely invested by the enemy, and with no pre-arranged scheme for expansion or pressure of downright starvation, could in four months equip 888,000 men and 1,350 guns, the task surely need not dismay us. If the States of the Union in 1861–64, equally under pressure of defeat, threatened in its Capital, and with no resources of trained men to draw on, could enrol,[1] equip, and send to the front over two million men of such quality as the

[1] See Captain Phisterer's (U.S.) *Statistical Records of the Armies*, published 1883. The total number enrolled and equipped was 2,772,408 men. The population of the Northern States, from which these were drawn, cannot have materially exceeded 20,000,000—at the same rate we could raise 5,000,000.

1st Maine Heavy Artillery,[1] and this too in spite of undeveloped communications alike of road, rail, and telegraphic facilities, again I can see no reason why we should fail where they succeeded, especially if we now in Peace time prepare the foundation for such expansion in our several offices.

So far I have omitted all reference to the annual cost of an Army organised on the lines I have indicated, and I have done so for the double reason, that firstly the principles involved can be carried through essentially without increased annual cost by the replacement of existing Infantry Battalions by Cavalry Regiments or Artillery Batteries, the limiting factor being the supply of men, not of money, and secondly because I hold strongly the German opinion that as long as the conditions of service are exactly adapted to the conditions of national environment, money spent on the Navy and Army is as usefully employed for the benefit of the State as the sums voted for primary and technical education, for with the growth of our great commercial establishments, character, and a high sense of duty, are daily becoming more and more essential to business success. A high grade of technical knowledge can only be acquired, and is only needed, by the few; a smattering of knowledge in the many is worse than useless, and to this view I find the majority of our engineering publications are rapidly approximating.

Money circulated within an Empire, through the Imperial Exchequer, acts as a fly-wheel to commercial machinery, steadying the fluctuations of the markets and preventing violent oscillation in the value of securities; but the fly-wheel must be proportioned to the power of the engine, and this we can only judge by the experience of other builders.

In Germany[2] the proper proportions appear to have been arrived at, for her commerce is thriving in spite of taxation and the alleged indirect cost of Universal Service, which undoubtedly presses hard on the type of man intellectually

[1] The 1st Maine Heavy Artillery on the June 18, 1864, assault at Petersburg lost 88 per cent. of its men without faltering. This was only the second time it had been under fire.

[2] Mulhall's *Industries and Wealth of Nations*, p. 53. His figures are given to 1894 only and would need readjustment; they are, however, sufficiently correct for the purposes of my argument.

qualified to become a useful technical expert, but every German pays 10 per cent. of his net earnings in taxation, national and local, against our 8·6 per cent.[1]

Ten per cent. on our National earnings would increase the revenue (national and local) by 20 millions sterling, and the presumption is strong that if our Navy and Army were utilised as thoroughly for the general good of the community as these institutions are in Germany, we could bear the same proportionate load with equal ease; though it must be pointed out taxation in Germany is mainly indirect, not, as in England, direct.

It is submitted that the advantages supplied by this scheme would suit the special requirements of our case as well as, probably better than, Germany's arrangements suit her own requirements.

Owing to the different steps of evolution through which the two races have passed, we as a race do not need the same drilling into habits of obedience and order as the youth of Germany; we have passed beyond that stage, having attained unity of Empire a century earlier. What we now require is a brisker circulation of blood between the Colonies and the heart of the Empire. We do not need to break down our potentially best craftsmen in a compulsory military mill, but we do require to plant out our good average breed of townspeople in new districts where they can renew their vitality. Again, we cannot force them, nor is it of any use to encourage men untrained to a rough out-of-door life, to face its apparent hardships; but this scheme, as above developed, exactly meets our needs, and will supply our Colonies with men who, having seen life under widely different conditions and faced the bed-rock facts of human misery, never far removed from famine in India, will bring up their children to a wider view of the Empire and its meaning to each individual, than can ever dawn on the yokel or town-bred type.

I have suggested above a national balance-sheet with a view only to supplying the cash aspect of the case for the average business mind, but who will venture to estimate the

[1] In France the percentage of taxation to earnings is 12 per cent.; at that rate our revenue would be increased by 58·75 million.

value in terms of £ s. d. of those ties of kindred knit by intelligent appreciation of our Imperial destiny, when at last the time comes for us to prove our right to survive in the 'great struggle for existence' which is a law of nature as much in the higher life of Empire as in the humbler realms of the animal kingdom?

Note.—This chapter was written five years ago; but though it has been repeatedly submitted to men who by their position might have utilised its conclusions, we are as a race so hidebound by eighteenth century (not even nineteenth) traditions of Warfare, that none have appreciated the importance of the value of the factor of 'mobility' on which the whole depends.

I would earnestly beg my readers who may wish to follow this idea out to study the case for mobility in my *Evolution of Modern Strategy*—a work which has earned the appreciation of the most competent critics in France and Germany.

CHAPTER XVI

ADEQUACY OF AUXILIARY FORCES TO RESIST INVASION

In previous chapters I have indicated generally the nature of the 'Surprise' attack which we may reasonably expect to be attempted against us at the outbreak of a great War. It is necessary now to pursue the matter in further detail as a preliminary to deciding on the adequacy, or otherwise, of our Volunteer organisation and training; and to save the reader the trouble of turning back to the beginning of the book I now recapitulate the principal points I have endeavoured to establish.

Our danger lies in the fact that neither our Politicians, Sailors, or Soldiers have realised all that is contained in the saying of Von der Goltz that, 'the Statesman who, seeing War to be inevitable, hesitates to strike when ready is guilty of a crime against his country.' Were this but the isolated utterance of a prolific, but not very coherent, writer,[1] this negligence would be quite excusable, indeed justifiable, for War is concerned with facts only, not with individual opinions. But the evil really lies in this, that our guardians are so little acquainted with the whole history of the evolution of military thought on the Continent, that they fail to understand that this is no isolated expression, but the absolute logical outcome of a whole century's experience, brought home to the Soldiers and Statesmen of every foreign country by such lessons as they severally have received on the fields of Jena, Waterloo, Königgratz, and Sedan. Hence it passes out of the realm of opinion and becomes the fundamental fact of the situation with which we have to deal, and its existence entirely destroys the basis of every scheme of Army Organisation yet suggested to the British People.

[1] Though, as mentioned above, an acknowledged authority on the Continent.

If I could subscribe to the comfortable doctrine that our enemies (in deference to the antiquated theories of International Law of which Clausewitz [1] speaks with such wholesome contempt) will kindly notify their intentions beforehand by a formal declaration of hostilities, and will thus give us time to mobilise and despatch our fleets, I would most cheerfully accept the standpoint created by our Politicians from the information extracted from the Defence Committee and its adjuncts. But since this would stultify the teachings of every General Staff in existence in Europe, and outrage the common sense of every man in the ranks of their Armies, I absolutely decline to accept our 'comfortable doctrine,' and must insist that the carrying capacity of foreign ships alone marks the limit of the danger our organisation should provide against.

On this basis, as I have already shown, we may expect to have to deal with two separate and distinct forces, one not exceeding 150,000 men in the South Eastern District, the other not exceeding 100,000, on the Yorkshire Coast; the former landing by surprise in the early hours of some day in August, the latter following about twenty-four to thirty-six hours later, when our attention may be expected to be fully absorbed by the fighting which will then be already in progress to the south of London.

I have further shown that, given adequate time to mobilise, our resources in numbers are more than sufficient to meet any strain they are likely to encounter.

My present problem is to investigate to what extent our existing forces, liable to fall in at a moment's notice, may be counted on to repel such an attack. The solution of it I give in detail in Appendix I. But a certain amount of explanation is necessary to make it clear that it is but the ordinary effort of an average trained Officer, without access to any confidential information, made against time and with no other advantage than a more intimate knowledge of the country itself and its

[1] Speaking of the use of 'force' in War, he says, 'Self-imposed restrictions, almost imperceptible and hardly worth mentioning, termed the "Usages of International Law," accompany it without essentially impairing its power.'—Book I. p. 1. English translation.

resources in roads, railways, water, and its geology than a General Officer Commanding in Chief recently returned from foreign service would be likely to possess.

It was drawn up in the following manner in response to a request made to me by the Manchester Volunteer Officers' Association to conduct for them a War Game on a general idea approximating as closely as possible to the probable situation that invasion must invoke. Having received this invitation, and having long since worked out all the Naval operations required to ensure the paralysis of our fleets, also the amount of transport required by the invaders and the time and arrangement necessary to bring them in absolute secrecy to the point of embarkation selected, I called on my friend, Captain Charrier of the Royal Munster Fusiliers, whose knowledge of the Napoleonic methods and their application by the General Staffs of the Continent is in advance of anything I have met with in this country, to lend me his assistance as Staff Officer. I then constituted myself General Officer Commanding in Chief of the Northern Command, acting with the full responsibility conferred on him by the War Office telegram given in the General idea.

To group the available units, by the aid of the Army List and a 4 mile to the inch Ordnance Survey, into Divisions, Army Corps, and Armies, assigning to each Division its line of advance, took about two hours, and to dictate the orders about an hour and a half. I have since, with Captain Charrier's help, gone over them repeatedly, and found that they are one and all perfectly capable of execution, in the time allowed, by the several Commands to which they are addressed. Hence I could reasonably count on having under my hand, in rendezvous positions, a force of some 90,000 between Ripon and Boston Spa (on the Wharfe) within 50 hours, together with a Reserve rapidly filling up from unallotted units taken from the Coast Defence troops, within supporting distance on the road from Leeds to Tadcaster and York. From the personal knowledge I possess of certain of the Brigadiers and other Officers in command, at the date on which these orders were written, I have not the slightest doubt that they could be relied on for the emergency.

But could the men, thus hastily united, be counted upon to put up a sufficient defence—setting aside for the moment the method of their tactical employment and the nature of the attack developed against them?

My reply is, that as far as the men go there can be doubt of their capability whatever. They have arms in their hands, they are in a friendly country, hence run but little risk of surprise in the ordinary sense of the word, they are in constituted units which have taken thirty or forty years to consolidate, and they would be acting under the influence of the most intense 'thought wave' that the world perhaps has ever witnessed, for never before in history has the means of creating this most essential factor of victory ever existed.

In former days, the transmission of intelligence was slow, the collection and transport of the masses slower still, and in no case which I can recall were 'constituted cadres to receive individuals' already formed. That the white heat of enthusiasm would speedily cool I fully acknowledge—wet bivouacs and hunger would soon exercise their usual baneful effects; but there is no reason nowadays why the men should suffer from want of food, and I absolutely decline to believe that even a couple of bivouacs would suffice entirely to wash the heart out of any Militia or Volunteers that this country is likely to produce.

That such an Army would be quite incapable of the long halt of expectation, and the subsequent rapid marching, that fell to the lot of certain German Corps in the manœuvres which culminated in the Battle of Gravelotte, and the investment of Sedan respectively, goes without saying. However, the essence of my position is, that from the very nature of the case such demands cannot possibly be made upon it, for the crisis cannot be prolonged, and the decision must be reached within very few days indeed.

If this decision were favourable, then I should have proved my case, and incidentally furnished only too good a handle to those whose mental inertia threatens the safety and endurance of the whole Empire. But the decision would not be favourable for reasons which I have outlined in my earlier chapters.

For though I have every confidence in my prediction that each unit would find its way to its appointed place, and when there acquit themselves as soldiers of our race habitually have done, I am equally certain that, handled as they must be under our present regulations, not even the best war-seasoned Battalions we have ever possessed would stand a chance of ultimate victory.

The reason for this opinion is not far to seek. It is because, judging by their existing writings, orders, manœuvre practice, and personality, I am convinced that we do not possess a single General, likely to hold this particular command on the North-East coast, who has as yet grasped the whole scope and sweep of what our enemies mean when they speak of a 'Modern Battle'—and even if by happy accident such a man were to arise, would it be possible for him to transmit his spirit to the men within the time allowed him?

Such a scratch Army could not be handled offensively. It would have to entrench, and then its fate on this particular field would be irretrievably sealed, for the essence of the whole Art of Army-leading lies in the power conferred upon the assailant by the increased range of modern weapons, to create conditions at a given point in the defenders' line which render human existence at that point impossible.

Under the storm of projectiles some 200 guns and 20,000 rifles can deliver, the front must be breached, and through the gap thus created the victorious assailants will penetrate, driving the survivors before them in panic, rout, and terror.

Given our existing organisation (or rather our want of organisation) the consequences of such an irruption of fugitives upon the populations of our West Riding towns can be easily predicted. The 'thought wave' would recoil, and the terror and panic would be in precise proportion to the confidence which the bearing of the troops (marching through the towns to the front) had inspired in the women, children, and non-combatants who had watched them on their way. That this should be the case is the direct outcome of ordinary human nature, and history supplies us with many examples. The discipline and appearance of the Prussian Troops marching through Erfurt on the way to Jena imposed confi-

dence even on Clausewitz, who, as a highly-placed Staff Officer, thoroughly understood the dangers they were about to confront, and one of the chief causes of the complete collapse of resistance throughout the country after the disaster of Jena, was the utter hopelessness which impressed itself on all Germans when it became evident that even these magnificent troops could not stand against the fury of the French assaults. But the power which nowadays lies in the hands of a Commander is at least ten times greater than that at the disposal of the Emperor Napoleon, a power the handling of which needs but a tithe of his genius.

That this reasoning will appear paradoxical to many I am only too conscious. The explanation, however, lies in the fact that throughout the Army and the Nation, the study of the Psychology of War has been entirely neglected. Though at one time we were empirically past masters in the art of Leadership, the secrets remained in the possession of the few, in whom the inborn genius for Command was allied with a rich experience. It was intuitive and empiric, and few of those who wielded it possessed the art to explain it. Neither Cromwell, Marlborough, nor Wellington have left us the key to the great influence they exercised, and it is only by reading between the lines of their own writings, and the records of their contemporaries, that we become conscious that there existed such extraordinary power to sway and guide the wills of masses of men towards the attainment of one object alone. But mechanical improvements have turned our attention to one side only, and in the search for the letter we have lost sight of the spirit.

In continental Armies, more particularly of late years in that of the French, research has tended ever more and more towards 'the Spirit,' and, by a species of Masonic evolution, an Esoteric doctrine has grown up, with the existence of which the average man, whether soldier or civilian, remains entirely unacquainted.

I do not suggest that in any Army there exists the cult of the secret society, or that men are solemnly sworn in to successive grades of initiation; I only mean that by the nature of things a similar differentiation of individuals takes place in a perfectly normal manner. Men do not waste their time

in talking to one another about matters which they cannot mutually understand. Thus, when a man once finds that his hearers are unresponsive, because they can no longer follow the trend of his thoughts, he drifts away till he discovers more congenial companions. As this process is repeated over and over again, the keenest intellects, everywhere and always, gravitate towards each other, either in speech or in writing. In France during the present generation, the incentives to study having been of the strongest, progress has been more rapid than in the German Army, and the result is visible in the new Philosophy of War which has of late sprung up, the meaning of which is quite unintelligible to all but a very few of our own Officers. But as General Bonnal, one of the leaders of this school, remarks in his 'L'Art Nouveau en Tactique,' etc., 'If English Officers cannot understand these matters, this does not prove that they do not exist, but only that their education has been very much neglected.'

This School has long since recognised that armaments, tactical formations, and Staff methods, being everywhere nearly identical, cancel one another on either side of the equation, the decisive factor of the situation being the resultant will-power, the 'thought wave,' of the whole population, which is finally embodied in the Army itself, and is dependent upon the individual training, both physical and moral, which begins in the nursery and finds its highest expression under the Colours, where intellect and character are welded together under the pressure of discipline, the rough corners of the individual are abraded, and the whole mass rendered susceptible in the highest degree to the influence of the dominant thought of the Commander, who is himself (as the mere fact of his survival sufficiently proves) the being best calculated to express the national conception.

In England, we having been free from the threat of immediate invasion during so many decades, the Army and the Nation have never thus been welded together, with the result that this psychic side of the question has not attracted the attention it deserves. Thus the Englishmen who rise to high Command embody only the Military and not the National view of every situation. Hence they fail to appreciate the magnitude of the forces which really lie at their disposal.

This is clearly demonstrated by the almost invariable falsification of the average military predictions formed at the outset of all European campaigns. If in 1866 the opinions of every Officer of field rank had been collected as to the issue of the Bohemian Campaign, probably 99 per cent. would have voted in favour of the Austrians; in 1870 at least 75 per cent. for the French; and I doubt whether even one in a thousand would really have dared to predict in advance the extraordinary duration of Turkish resistance against the Russians in 1877. We judged the men as soldiers only, and failed altogether to realise them as what they really are —automatons driven by the 'Will of the People,' which Will is itself the product of racial tradition and contemporary evolution. I have already pointed out that the part which each of these factors plays in the final decision varies from time to time throughout a campaign, and from hour to hour upon the battle-field.

It is for these reasons primarily that I have always condemned every proposal to sacrifice numbers in the Volunteer Force to a higher standard of efficiency. For under all circumstances the factor of instinct, *i.e.* of tradition, is greater than the modification we can impart by Peace-time education. Hence, within the practical limits assigned to us by economic conditions, the Nation will always obtain (for the same expenditure) higher fighting power out of the many than from the few.

It is the wide dissemination of the spirit of self-sacrifice, not its concentration, that really counts; for every additional trained man brings home to his family circle some small measure of knowledge and sympathy for the task he has undertaken in his share of the defence of the Empire and of his own hearth.

A little closer consideration of the problem now before us will make my meaning clearer.

Let us assume that our 90,000 men, in the positions I have indicated, are composed of troops as good, say, as one year's compulsory training, of the severity we could afford to apply, could make them, but with no further Reserve immediately available behind them.

Compulsory service once adopted, National defence becomes the affair of the State. The outbreak of hostilities would occasion only surface excitement. There would be wild, surging mobs around the railway stations seeing the soldiers off, all business would of course be suspended, and next day most of the enthusiasm would have evaporated, for everything has been organised to meet this special emergency, everyone has done his allotted duty, and the State has no further claims on any individual other than its Compulsory Service soldiers.

But within thirty-six hours the scene would have altered. From far away to the North-East comes the roar of a continuous cannonade. Frightened villagers begin to hurry in, and presently arrive the first grim trains of the wounded. All day rumour rises and falls, and towards evening broken stragglers, the first to leave the field, begin to pour in along the roads, spreading, as usual, the most alarming accounts of the progress of the action, as they do always and everywhere. Then, when mental tension is at its highest, comes the real stream of the fugitives, driven out by the final attack—twenty or thirty thousand beaten men (a sight which no Briton has ever seen in his own country), and rumour magnifies even these numbers fourfold.

The Army the Nation trusted in is utterly beaten, and there is nothing behind it to take its place. Then the panic really begins, and roads and railways alike are crowded with families flying to the westward.

Against these waves of fright and foreboding not even a Napoleon could stand, and though they will spend themselves, as do all other emotions, there is not depth enough in the theatre of operations to render possible another effective stand against the enemy. The pursuers would enter Leeds and Bradford hot on the heels of the fugitives; they would find ample provisions, and, doubtless, also cartridge depôts in the great towns,[1] and with their ammunition replenished they could continue the pursuit, never once giving the enemy time to rally.

[1] Under our existing laxness in Custom House inspection cartridges could easily be imported by German firms in Bradford, etc. Written before the recent discoveries of ammunition in Sunderland, Glasgow, Edinburgh, 1907.

With bad news coming in from the Southward (as it probably would do) the reflux of the great wave of enthusiasm which sped the defending British troops on their errand of repulsing the invaders would come back with overpowering momentum and would carry all minds before it. Then the end would be at hand. And this, for the reasons which I have given, must happen, however good or bad the troops might be, only the greater the initial confidence in the Army the more serious would be the reaction of despair after its defeat.

It is this reflux of the 'Thought Wave' which we have to fear, and the 'Art' will be to utilise this very momentum of disaster and compel it to do for us a useful work—like the utilisation of the energy of recoil in a quick-firing gun.

This seems to me to indicate the true line of reform for our Auxiliary Forces, and I work it out in the following way.

War being unexpectedly sprung upon us (as I have described) the seriousness of the situation would be immensely more apparent. Then if Compulsory Service did not exist, every man's conscience would prick him with a sense of neglected opportunities, and each one would feel that, the Government having failed him, nothing but individual effort could possibly be of any avail. The magnitude of the danger would be the measure of the personal sacrifice, and men would stream down in thousands to every drill-hall and depôt in the country clamouring for arms. But when the country at large was depending solely on the Government men (Compulsory Service men) there would be a deadening of the sense of individual self-sacrifice and obligation to take up arms for a united National defence.

It would be exactly like fire alarms on board one of the old troopers. Everyone other than the Service men, naval and military, looked on the thing as a 'game,' and took no particular notice of it, even if the signal meant serious mischief.

Since, as I have shown in the Diagrams II. and III., there are roughly about eight million adults capable of bearing arms in the country, of which over three million have passed through

the ranks, on an average about every other man who presented himself would be trained, the other not. And, the order of their arrival depending on the accident of their distance from the depôt or drill-hall, it might well happen, if every man was accepted as he appeared, that whilst a great number of relatively untrained men were enrolled, the larger number of relatively well-trained ones would be left out, for there could hardly be arms and accoutrements available for all.

This, of course, is the confusion that we all fear as a consequence of want of organisation, and, as matters stand, undoubtedly compulsion and the order it carries with it would be the preferable alternative.

I venture, however, to think that the plan I propose would be better than either, giving us the organisation guaranteed by compulsion and the driving force of voluntary effort which compulsion would destroy.

I would simply keep at the Head Quarters of each Corps a nominal roll of the men who passed through the ranks, and raise from amongst them nucleus companies out of the men living near the drill-hall, who would undertake to keep in touch with a few of their old friends whom they would bring to re-enrol themselves in the event of a national emergency. Very many men who for one reason or another cannot afford the time necessary to render themselves efficient every year do not sever themselves from their comrades without reluctance, and these men could easily be induced to keep up a nominal connection with the battalion, in return for being made honorary members of the mess or canteens, and encouraged to appear at prize-givings, sports or church parades, as is in fact already the custom in many places.

Using these men as centres I should then establish through them a propaganda of defence, and encourage each of them to make himself familiar with half a dozen other ex-soldiers, sailors, or volunteers, who would present themselves if required; and with these men in attendance at Head Quarters it would be a comparatively simple task to sort out the desirable men in a moment of emergency.

Nothing would be easier than to test the adequacy of this plan. Take any large town in which the Volunteers have

enjoyed a secure footing for the past twenty years. Get the local newspapers to publish an outline of the idea, and advertise a parade of all men willing to come up for the country's defence on any convenient half-holiday, adding that a smoking-concert or some similar entertainment would conclude the meeting, and note the result.

As for the question of equipment, the bedrock fact must always be kept in mind, that though it is pleasanter to have every detail in perfect order, yet if the need arises men have fought before both shoeless and ragged, that in fact a rifle, ammunition, and a bag to carry it in, are the only real essentials for men whose heart is in their work. Thus baldly stated, the warning will appear to many to be superfluous, and as regards the rank and file this may well be the case; but experience shows that for the Officers, and particularly the senior ones, those who realise most clearly the disadvantages which undoubtedly follow from want of preparation, the fact cannot be insisted on too frequently.

We have only to turn to the history of the Franco-German War for a case in point. The French Army at the outset of that campaign stood ready with arms and sufficient ammunition on July 28th—and an attack initiated any time before August 3rd must have brought them with crushing numerical superiority upon the 1st German Army, the consequences of whose defeat on the subsequent course of the War it would be difficult to over-estimate. But the French were deficient in cooking-pots, water-bottles, cholera belts, etc., and none of the Divisional Commanders would accept the responsibility of reporting their troops fit for action, though they were in every respect far better provided for than the average of the Napoleonic Armies on their entry into the field.[1] If this was the case in the French Army, in which the catch words of the Napoleonic epoch, and some of the traditions of the Grand Army at least, still lingered (which, moreover, was habituated to the idea of campaigning in temperate climates and under normal conditions), it may be imagined how much more it is needed in the case of British troops accustomed to wage War

[1] Campaign of 1796, de Cugnac's *Armée de Reserve*, Colin's *Grande Armée* 1805, etc.

in distant countries where the difficulties of replenishing stores and renewing equipment are often far greater than the task of defeating the enemy.

There being rifles and ammunition enough within these Islands to meet such a temporary emergency, and experience having shown that the Volunteers can be trusted with their custody, there is not the slightest reason why a sufficient reserve supply of these articles should not be distributed to every unit in the Kingdom; and if this moderate demand were complied with, then without any further equipment than what could, if necessary, be improvised in twenty-four hours, the men would be better found than the vast majority of armies after a year's service in the field. They would have boots good enough for a week's work at least and broken in to the feet, ordinary plain clothes neither better nor worse than the individual man is in the habit of wearing, and all they would need would be some distinctive head-dress, felt hat or cloth cap throughout the battalion, and red cotton jumper, made like a 'jibbah' to go over the plain clothes in which they reported themselves. As for belts, at a pinch the homely rug strap of the tourist would serve, and the tins of the emergency rations (which, by the way, should need neither cooking nor knives and forks for their consumption) would answer as drinking-vessels.

Within twenty-four hours every existing unit might thus be duplicated; in forty-eight hours triplicated; and their existence alone would suffice to absorb the energy of recoil to which I have above referred. For, generally speaking, the men these new formations contained would be older, and having some regard for the traditions of the Corps in which they had been trained, and out of which the new Battalions had been evolved, they would take the defeat of the parent body more or less as a personal matter. The tendency would be to jeer at the run-aways, who in return would be spurred on to wipe out the disgrace. And finally, round the nucleus of the older men the whole thought-wave of the feminine half of the population would rally.

So far, in speaking of the 'Thought-Wave' and the number affected by it, I have thought only of the adult males of

the country, but what of the women, at least equal in number? How will a crisis of the nature anticipated affect their contribution to the resultant? As a rule it is the custom to treat women in War rather as encumbrances than helpers, but I consider that both history and reason point to an opposite conclusion. Woman is far more governed by instinct than are men—a necessary consequence of the neglect with which for ages her intellectual development has been treated—and in the depths of their nature they are far more nearly allied to their ancestresses of the days of the empty platter with the spur upon it[1] than are their men. In such an emergency where War, 'bloody War,' and its concomitants, hunger, want, and the slow death by starvation, stared them in the face, the whole underlying ferocity of their nature would be aroused, for, without reasoning, each mother would intuitively recognise the threat to the happiness and the lives of her children that such War involves, and her contribution to the great 'Thought-Wave' (which I contend governs the action of the Nation considered as a crowd) would go out with all the greater intensity by reason of the savage fear which generated it.

Instinct teaches us to fight in packs, reason only suggests surrender as the better way; and that this is the case the conduct of our women in countless troubles in India, China, and the Cape, in shipwreck and in pestilence, most abundantly proves.

Surely Kipling never wrote truer words than:

> Never the lotos closes—never the wild fowl wake,
> But a soul goes out for England who died for England's sake.
> Man or woman or suckling. Mother or wife or maid,
> Because on the bones of the English the English flag is stayed.

I need scarcely say that the manœuvring power of these Reserve formations would be exceedingly low, but it would be, at least, as good as that of the early Volunteer Battalions in the days of the old Brighton Easter Monday Reviews, which was already sufficient to ensure the arrival of the several Corps with punctuality at their appointed places; and this, with the

[1] In the old Norse days, when provisions for the fighting men ran out, the women used to enter the dining hall with a plate bearing only a spur upon it as a sign to the men to go and forage.

enormous numerical preponderance now assured, would be enough to guarantee our eventual success, for as between men equally well-armed and of approximately equal mobility, odds of three to one would nowadays suffice to outweigh all advantages that greater length of training would entail, except in open country, such as does not exist anywhere in the United Kingdom, where fighting is likely to take place.

Moreover, immense though the advantages of the strategical surprise contemplated would undoubtedly be, to secure this surprise the enemy would be compelled to make many sacrifices of efficiency and staying power. It would be quite impossible for him to select men for this special service or call in Reservists, for such a procedure would be sufficient to disclose his intention and attract our first line of Defence to the observation of his ports. He would, therefore, be compelled to embark his units as they stood, and though commanded exclusively by Officers on the active list, and in the pick of physical condition, they would be far better adapted for the winning of a first battle than when made up to full War strength with their reserve men in their ranks, they would be wanting in the moral endurance which only age and the sense of responsibility that comes with it can give.

As a consequence of their high standard of discipline and of the want of actual battle-field experience common to all Continental armies, many of their units would have lost up to 25 and 30 per cent. of their numbers in the first engagements, and weeks would have to elapse before they could be relied on to attack again with the same dash and enthusiasm as on the first occasion.

But our first defeat, affecting only one third of the whole force as I have shown above, would but serve to stiffen our men's resolution and bring about that 'sullen and fierce disposition which makes the English soldier indifferent to all else but the killing of his opponent, and renders him more dangerous in retreat than in victory' (vide Michell's 'Modern Tactics'), and all that we should require to complete our enemy's discomfiture would be the necessary resolution in our Commanders to give the enemy no rest until the last man and horse had passed into captivity.

That this resolution would be forthcoming I have not the slightest doubt, for Commanders, too, are only human and come under the influence of the 'thought-wave' like the rest, and in the few days this final phase would last there would be no time for the enemy to cow our National spirit by a policy of reprisals, a policy which is not easily initiated nowadays in a peace-trained Army.

The same organisation of Reserves being in force all over the country, modified so as to bring in both the Militia and Regular Armies, then the resistance of any invading force which could be landed in a single trip—(I rely on the fleet to prevent any possibility of reinforcements reaching it)—could, I consider, be absolutely broken within a week, but this event would not bring the War to a close; but, on the contrary, would mark only its commencement, for the loss of a quarter of a million men would count for nothing in comparison with the magnitude of the stakes at issue, which alone would justify such an attempt on the part of our probable enemies.

As I have so often insisted, War nowadays is the 'struggle for the survival of the fittest,' and, once entered on, the question must be fought out to the complete exhaustion of one or the other of the combatants; any lesser decision could only be of the nature of an armed truce, which we at least could not afford to accept. It remains, therefore, to discuss the subsequent steps which would be necessary to enable us to carry the War into the enemy's country and effect the complete destruction of his naval resources.

I submit that these would grow quite naturally out of the organisation I have above suggested. However rapid might be the steps of our triumph over the invaders, the fact of invasion alone, together with the temporary loss of the command of the sea—the necessary consequence of the partial paralysis of our fleets, which must of necessity form the preliminary operation to the successful passage of the sea—would so completely disorganise all commercial credit that hundreds of thousands of men would be thrown out of work, and danger from the pressure of the unemployed would become excessive.

The option being given to the Volunteers and Militia

returning from the front to re-engage for the War or revert to civil life, by a process of natural selection, the right men would find the right places. It is not likely that under the excitement of the moment many would sever their connection with the Colours willingly; hence, only those who had pressing business to attend to—in fact, those whose civil work would contribute most to the recuperation of the community—would lay down their arms, while those whose employers had gone under would remain in the ranks. The latter would not be very clear as to their real motives—men never are; with imaginations stimulated by the daily Press, they would believe themselves actuated by the loftiest patriotism, while, in reality, they would be driven by the direst necessity. If the element of compulsion were introduced, this adaptability would be lost, for no choice could be conceded to the individual, and men would be turned adrift for whom there was no work, and others retained whose services might avert most serious sufferings from those dependent upon them—whose voices in this event would, of course, go to swell the general cry against the prolongation of the War, which would be the inevitable consequence of the release from immediate danger.

For after the surrender of our enemies within these islands, there must of necessity ensue a prolonged period of inaction while the Empire was gathering strength for its final spring and our Fleets were sweeping the sea; for only time and the pressure of relative starvation can generate the necessary driving power to bring home to the masses the absolute necessity for an utmost effort.

No Compulsory Service Army, ever yet contemplated in this country, would at this stage of the proceedings suffice to humble our enemies in their own country: even a million men would be a mere drop in the ocean to the numbers which could be brought against them.

But every month's delay would play into our hands, for we are not the only nation that would feel the strain of War.

It is obvious that we cannot blockade the whole of Europe, and hence that our enemies will always be able to draw supplies over their land frontiers, and so far we are at a disadvantage;

but few of those who have discussed the matter seem to be aware how closely competition has clipped the margin of commercial profit. If the Atlantic trade were diverted from Bremen, Hamburg, etc., to the neutral Mediterranean ports, the existing railways could not handle one-half of the traffic, and the increased cost of transit would wipe out any possibility of profit.

Commercial panic would become the order of the day on the Continent, the ranks of the unemployed would be swollen, and the doctrines of socialism and anarchy would find ready propagation amongst these crowds seething with the bitterness of failure, which they would, of course, attribute to the incapacity of their Chiefs.

With men in this temper it would be dangerous to call out the Reserves and embody the Landwehr, nor is it easy to see where the money to pay them is to come from. Roughly each of the great Armies of the Continent costs one million sterling a day when on a War footing, a sum which would have to be borrowed somewhere, and I do not think they could get it in New York.

Nor is it possible with compulsion to mobilise a portion of the whole Army without creating fresh causes of disaffection, because in the districts in which mobilisation is decreed, the labour market is stripped quite bare, whilst in the others men are thrown out of employment by the cessation of the demand or supply, as the case may be, normally created by their neighbours.

Hence there ensues a migration amongst the work people, which is always and everywhere the greatest difficulty with which the police have to contend.

In my opinion, I give it for what it is worth, no State on the Continent could endure this strain for two years, and in less than half the time in some we should see much the same condition of things as existed in Russia in the Spring of 1906; for trouble would spread far more rapidly amongst the more densely populated and intelligent races of the West, and the strikes of telegraph operators and railways, the latest weapons of the Continental Socialists, would have far wider reaching and more serious consequences.

Meanwhile our fighting power would be growing from strength to strength. As one industry after another collapsed for want of raw material, and the prices of food rose as they indubitably must under existing conditions, the flow of men to the ranks would steadily increase, but it would not be in the first instance direct to the Regular Army. Men are slow to realise the extent of the calamity which threatens them, and thousands would turn to the more elastic conditions we could afford to give to the Militia and Volunteers and which it would be a matter of the highest policy to accord them.

Then, as hope of employment grew fainter and fainter, and the whole magnitude of the task before us became manifest even to the man in the street, the rush for the Regular Army would begin, and we should be able to pick the best for our real fighting line: the Army which would carry the War into the enemy's country.

This should be the cardinal principle of our organisation. In face of the enemy there are no caste distinctions, but all are soldiers alike, serving on the same oath and under the same conditions as to pay. It was not until the French had fused their volunteers and line soldiers into one, in March 1796, that the real weapon was forged for Napoleon's hand.[1]

The growth of the Regular Army would then follow the lines I have indicated in the previous chapter, which are identical with those conceived in the original Cardwellian Reform. I would allow whole companies either of Volunteers or Militia to join the Colours under their own Officers, for South African experience was on the whole favourable to the plan, and it carries with it a certain amount of guarantee that the men and Officers would know and understand one another; but against larger units, in principle I would set my face. With the Militia, especially, when commanded by ex-Regular Officers, exceptions might be made, but with the average of Auxiliary Forces the plan would not work, for the personal tie

[1] The order for the 'Amalgam' was issued in Paris in January 1796, and was in process of execution when Napoleon took command of the Army of Italy in March 1796. It was that order which made his subsequent career possible, for it alone rendered feasible the maintenance of even such discipline as he was able to enforce, and his success or failure in that campaign, his first one, depended on that slender thread alone.

between Battalion Commanders and men is of necessity insufficient, and the Commanders themselves, accustomed for years to the exercise of their own independent judgment, and from want of systematic training in the habit of viewing matters from the General Officer's standpoint, could not be relied on for that absolute obedience to orders on which the execution of every combined manœuvre depends.[1]

I am well aware of all the objections that can be urged against such a scheme, many of which under the everyday conditions of the Service must indeed appear unanswerable, but I take my stand on the driving force that no one of us in this country has seen in action, the concentrated will power of a great Nation, one third of which at least has grasped by previous training the elementary principles of subordination, and all of whom have learnt from childhood upwards the advantages of co-operation.

In England we do not, and cannot, realise the depth and height of the instinct of solidarity which permeates every individual of our race, but the history, even the contemporary history of the Empire reveals it to those who have eyes to see, almost day by day, but it needs adversity, climatic or otherwise, to bring it out in its full strength.

In Peace time and in safety, the sense of individuality and hatred of restraint is so deeply rooted amongst us that we are for ever finding fault with each other and the executive; but when danger is clearly evident, all this falls from us, and there is hardly a limit one can place on the sacrifices each is ready to make for the good of the community, and this willingness to risk all for the country is by no means limited to any one class. We do not send the pick of the race to open up fresh trading facilities in the West African swamps; indeed the very reverse is the usual practice; yet even there, where the risks to life and limb are the highest, the most trying for men to confront, danger has but to threaten to bring forth a heroism equal to that of the martyrs of old, indeed even greater, for our religion does not yet offer paradise for those who lay down their lives merely in order that their country's trade should thrive.

[1] Compare *supra* Chapter XIV. pp. 262 *et seq.*

If these isolated units, unaided by discipline or training, can thus rise to the occasion, it appears to me absolutely unscientific to doubt that, with the impulse of danger behind them and minds tuned to vibrate in response to the 'Thought Wave' this danger will evoke, men will be less prompt in their response when the strain comes; and if I am right in my contention, then all the difficulties, foreseen by those who clamour for compulsory training, and base their case upon the shortcomings so frequently manifested in Peace time, will speedily vanish.

CHAPTER XVII

ESPRIT DE CORPS AND THE VOLUNTEERS

It will, I think, be clear to those who have followed me thus far that the essence of the successful organisation of Victory in time of Peace lies in the creation of a sufficiently powerful 'thought wave' to compel obedience throughout the mass—that the stronger the ties of mutual interest which attach the individuals of each unit one to the other in Peace time, the more certain will be the desired result.

Now as a matter of general observation it is quite certain that in proportion as men have a living interest (which in its lowest form may be expressed in terms of £ *s. d.*) in the performance of a common task, and the longer they are closely associated with one another for this purpose, the greater the devotion with which they will strive individually for the attainment of their common ideal.

Within the Army itself this is thoroughly understood. Our fetish-like worship of the conception of *esprit de corps* sufficiently establishes this fact. But we, *i.e.* the Regular Officers, completely fail to appreciate the power of this same 'resultant thought wave' which is created in quite different organisations, having only this single factor common to all, viz. the general interest in the success of the whole. The average Soldier-Officer does not begin to realise the deeds of heroism inspired in men in everyday life, simply and solely by a sense of community of interest. They would be the first to recognise them if they knew. But in fact the vast majority of such acts escape publicity altogether and one can only get at them from house surgeons and nurses, in great railroad, manufacturing, or mining centres, where they have become so common that they barely attract attention, even that of the Press.

I could fill reams with instances taken from mining districts, railway work, police duty, and our merchant service, the essence of which lies in the fact that the acts were spontaneous, done in cold blood, without the impetus or excitement of War to stimulate the agents. When one analyses them all, he gets to the bedrock motives which compelled them, and finds always the same fundamental condition—community of interest amongst members of the same body.

From this I deduce as a general principle that the essence of all sound Army organisation must lie in the production of this sense of community of interest, and I submit that it is actually easier to create this feeling in the Volunteers and Militia than in the Regular Army.

The reason why it takes so long to develop true battle-field discipline in Regular units is that, from the very nature of the conditions under which the soldier has to act, it is difficult to find this sense of community.

By the nature of the terms of his enlistment he has little practical personal interest in the success of his exertions, and this must be so, because in the last resort he is the keystone of our whole structure of civil law.

We are so accustomed in England to the sight of the policeman, say, on point duty in the streets, that we entirely forget the force which stands behind him. The fourteen thousand Metropolitan constables with their truncheons would be powerless to check the rush of even a moderately sized mob—if that mob once meant business. But a telephone message could bring a whole Battalion of the Guards on the scene within a few minutes, and one round from their rifles might mean ten thousand lives—if all of them recognised the seriousness of the situation and kept their rifle muzzles down. But this is precisely what, in practice, they would not do, for drill the soldier as you please, you can never make a pure machine out of him. All you can do, and all you must do, if the structure of civilisation is to be preserved, is to keep him as aloof from internal party problems as possible, thus ensuring that he will obey his orders, whatever they may be, without question, when a great national crisis actually confronts him.

With the Volunteers or Militia, this question in its acute form never arises; he can only be called on to shoot against his country's enemies, or, in an exceptional case, when his own interests are suffering from mob misrule. But then he has the best of personal interest urging him to put a stop to the cause of disturbance or destruction.

To create by a stroke of the pen an organisation capable of evolving this spirit of community of interest I hold to be altogether impossible. I know no instance in Military History in which this end has been attained. On the contrary, I find everywhere that reforms have only succeeded in proportion as they grew naturally out of previous conditions, the real essence of which was thoroughly appreciated by their creators; and, when the proposed measures have appealed to the whole nation involved, as a common-sense answer to the question of an immediate emergency.

The adoption of Universal Service by France in 1798, and by Prussia in 1807–8, though always coupled with the names of Jourdan and Scharnhorst respectively, was in actual fact no new creation in either case, but an idea thoroughly familiar to many, and towards which events had been leading the two nations for years. The credit due to the respective inventors, great though it undeniably is, lies really in their seizure of the psychological moment for the contemplated changes, and their adaptation of details necessary to reconcile all the many conflicting opinions and interests which exist and are threatened by the prospect of any sudden alteration; and not in the devising of a plan.

Our task, therefore, is to visualise clearly the materials we already possess, and to note the line of least resistance along which institutions now in force can best develop themselves.

The central fact in our Volunteer Army lies in the complete freedom they have hitherto enjoyed of administering a certain income—derived principally from capitation grants—to meet their own needs according to local conditions.

In the exercise of this power, many, in fact the great majority of Corps, have acquired landed property of constantly

increasing value, of which hitherto they have taken but little advantage.

A concrete case will make my meaning clearer. A certain Volunteer Corps acquired some years ago the freehold of an excellent site in a quarter of London that is rapidly increasing in value—its actual area is 240 feet by 120 feet, and a Drill Hall 140 feet by 70 feet would suffice for all its requirements.

Its existing accommodation for messes, offices, canteens, etc., is most inadequate and unattractive. The Commanding Officer, anxious to improve the attractions of his Corps, went to considerable expense in the preparation of designs for a new headquarters, and gave me the opportunity of inspecting them.

The proposed buildings consisted of two stories only, and would have cost about 12,000*l.*, the interest and sinking fund of which would have seriously hampered the financial position of the Corps for years.

I suggested that in the quarter in question a six- to seven-story building would be in better harmony with its surroundings; and, further, that if the second floor were reserved for officers, messes, etc., the ground floor and upper stories could be let out for shops and flats, and would easily command a rental sufficient to cover all necessary outlay, leaving the corps a clear profit of between 1,500*l.* and 2,000*l.* a year.

The Commanding Officer in question has quite grasped the point made, and I prepared rough estimates based on local values which show that the idea is commercially sound, and should readily obtain all the capital needed.

It will certainly be possible to provide an admirable canteen, offices, and messes, good enough to induce an excellent class of recruit to offer themselves for the ranks, and to induce good men to join as Officers. If carried out, as I believe it will be in the course of the next four years, it should form the focus of a development of the whole Volunteer service, the full possibilities of which can hardly be predicted.[1]

For this is by no means an isolated instance. I have

[1] The acceptance of Mr. Haldane's scheme will, of course, knock all such suggestions out of existence.

examined many other sites in other parts of the country, and am convinced that the time has now come for such self-supporting Volunteer centres to spring up owing to the lateral spread of our great centres of population. It is absolutely indispensable for these great towns to grow upward, as well as horizontally, and the gradual development of the flat system is proof of the soundness of my contention.

Now let us note the possibilities the possession of this secured income opens to the development of the whole Volunteer Force. The ideal we have to aim at is the passage through the ranks of a very large fraction of the total population. But this passage will be of no real avail unless we can retain, over and above the Permanent Staff lent to us by the Regular Army, a sufficient number of really keen men whose interests are united with those of the Corps, and whose intelligence has been sufficiently awakened by instruction to enable them to impart sound general ideas on the nature of the Empire at large, and the duties of both civilians and soldiers to their friends and relations as well as to each recruit joining their particular Regiment.

If as Commanding officer of such a Corps I possessed the administration of an assured income of even a couple of hundred pounds, I should immediately proceed to institute a system of Old Age endowments, somewhat on the following lines.

Every man, being qualified by regulations as efficient, and certified by his Company Commander and the Adjutant as likely to become a real element of strength and growth to the Corps, would have invested for him a sum of 10*l.* annually in the purchase of an annuity. This would accrue to him on his attaining the age of fifty-five to sixty. But the investment would be made on condition that within three years of his being recommended for such a policy—he availed himself of the nearest University or Technical Institution and obtained a certificate or diploma from that Institution in any one, or more, of certain subjects (to be agreed on hereafter) as likely to be of most service in developing his value to the Nation as a citizen and wealth producer. In different districts the subjects might vary according to local facilities

and tendencies; but generally I should recommend history, geography, and some branch of science, as being most suitable for the average man.

These policies should not be continued indefinitely in any one rank. On the contrary, if a man did not obtain promotion within a fixed period, the payment on his account would lapse, but the amount he had earned could become his own property, and he could go on paying the instalments himself, or deal with it as he saw fit. No one should receive more than twenty annual payments, as the amount thus accumulated by the age of fifty-five would be a sufficient inducement for the purpose intended.[1]

Fifty such policies running in a battalion of 1,000 men would cost 500*l.* a year, and in the normal course of events, some four or five would become vacant each year, quite enough to keep up a healthy spirit of emulation.

Though it would be preferable, if one could find the funds needed for this idea out of the Battalion income—yet, even where local conditions made such payments impracticable, I think that once it was started it is quite possible that those who believe both in education and drill (*i.e.* military training) combined, would very readily come forward to aid such a scheme within their own districts. Day by day the feeling of distrust towards book-education alone is increasing, and men are beginning to understand that 'character' is the real secret of success in life, and that it is the prime object of all Military training to develop character to the utmost possible in each individual man.

In the north of England (where the men accept no payment for their attendances in camp) funds sufficient to initiate such an experiment would be at once forthcoming, if attention were once concentrated on true efficiency, and if the lavish expenditure, in which some Corps indulge, on unnecessary changes in uniform, fancy equipments and the like, were resolutely put a stop to.

Better quarters, such as I have indicated, would open yet other sources of revenue to their owners. It is extraordinary to me, in view of the fact that the Regimental Canteens in

[1] About 320*l.*—or 25*l.* annuity.

the Regular Army were actually the pioneers of all Co-operative Societies,[1] that so little has yet been attempted to improve and develop them among the Volunteer Corps. Given the existence of suitable premises, the first step would be to trace out all former members of the Corps, and all other men in the district who have worn the King's uniform, and make them honorary members of the Institution. One would exercise reasonable precautions in their selection, giving to each man some small badge, the Regimental crest, for instance, to be worn as a token for recognition. In connection with the Restaurant and Club rooms there should be a general Co-operative Store, at which all should be entitled to deal, the profits going to the shareholders still on the active list. A little reflection must show that since, as I have already demonstrated in Chapter XIII., one-third of the male adults of the country have actually passed through the ranks, there must everywhere be a sufficient clientèle to ensure commercial success to such an undertaking.

Such an Institution would, moreover, end in requiring a very considerable staff of attendants, and the hope of thus obtaining employment would be added to the attractions towards enlistment which already exist.

I would further make the Refreshment Rooms and bars the most active competitors with the existing public-houses and gin palaces, and crush these last out of existence by a general process of levelling up. This is the method which I think all practical combatants of the drink evil agree in recommending.

But in this those who war against drink seem to be doomed to failure, as each new competing house has to attract its own clientèle—there being no bond of union between the customers the ordinary public-house wishes to attract as there would be under the scheme I have suggested.

Since co-operation without the common bond of Army association has proved on the whole a very marked success, I consider that with this additional factor thrown in, it is scarcely conceivable that my plan could fail.

An essential feature of my scheme would be that the

[1] Report of Co-operative Societies' meeting, Crystal Palace, August 22, 1906.

canteens, or restaurants, or whatever they may be called, should not only be open to, but be attractive to the women, for their influence is not only decisive to the success or failure of such a movement, but without them the greatest moral lever in the whole social organism would be omitted. The sexual factor is the dominant chord of Western civilisation, and to ignore it would be to foredoom the whole project. Kipling saw this clearly when he wrote his 'Dream Army' and the 'Chicago Anarchists.' If there were no women and children to protect, the whole motive for exertion and self-sacrifice would fall out of the scheme of civilisation; for though boys and youths in Western nations will sacrifice themselves for one another, the Platonic ideal is absolutely abhorrent to the men of Western nations. Fundamentally this is, and always has been, the secret of our success against unparalleled odds when fighting Eastern races—men individually quite as brave, and physically often more powerful. It is a very difficult matter to touch on in this country, but the fact is well known to every man who, having served in the East, has faced the problems with which such service has brought him into contact.

Eastern races will fight, as we well know, for the honour of their women, but they do not fight for love of them; and therein lies the whole difference of the two races and the scientific justification of our survival.

In 1849 the Afghans rose against a small British force of occupation and practically destroyed them—at little risk to themselves as it happened—because the honour of their harems was endangered by our presence. But this risk would never have arisen had not the Afghans themselves in the first instance neglected their women. Sir Richard Burton has told us the details, and he incurred the severest social censure of his contemporaries for having dared to admit the extent of the knowledge of Eastern customs, which he repeatedly risked his life to acquire for the service of his country. But when in 1857 our women were threatened, the difference of the two races became sufficiently apparent. No man has ever dared to tell in print the psychic facts of the Mutiny, nor would it be possible to make its inner mysteries

clear to the ordinary stay-at-home readers, who are shocked beyond expression when they read of the lynching of a negro in America, and are absolutely incapable of realising the intensity of the racial instincts involved in each such expression of antipathy.

The root distinction between the several races arises essentially from the varying power of idealisation inherent in their nature. To the African negro the woman represents property solely; hence, by gradations through successive stages of civilisation, the power of idealisation raises her till she becomes the national ideal. However faulty she may be in the concrete, in the abstract she tends evermore to become the race ideal; and, once that ideal is threatened, the greatest misogynist, or the most abandoned sinner, will peril life and soul for her preservation.

The British soldiers who died by thousands in the Mutiny in their efforts to come to the help of English women and children, could hardly all of them have been altogether happy in their family relations. Indeed, anyone who was ever brought into contact with the married women of a Regiment in those days, and for many years afterwards, can hardly entertain any illusions on that score at all. But when the call was made on them, the individual was merged in the type. Wounded and sick, they broke out of hospitals, found their places in the ranks, and fought with a determination we have never exceeded, to save the mothers and wives and sisters of British blood.

Perhaps there is no more striking instance of the power of a great 'thought wave' in all Military history, or of the kind of impulse necessary to create one, for in no other part of the world do men suffer more acutely from lethargy and debility, which diseases often exceed the will-power of the individual to overcome. No one who has not encountered this inertia of the average man in the Indian plains can appreciate the intensity of the force needed to spur them in the mass to such unparalleled exertions as those with which the whole chronicle of the Mutiny teems.

If this is the case then we are neglecting the principal factor in the sum of our preparation for the emergency which

lies before us, by not making more of the social possibilities of our existing system; neglecting also the strongest lever we possess for raising the whole moral tone of the race.

Our greatest evil, the ultimate cause of nine-tenths of the misery and crime arising from drink, which is a standing disgrace to our civilisation, springs primarily from the segregation of the sexes which was brought about by the growth of the huge cotton mills in the North, and other industries in which women are employed in droves, out of natural and healthy contact with men. Throughout the hours of daylight from September to March, men and women of the northern industrial classes rarely see each other, and when their work is over and the opportunity for recreation arises, the two having but little common interest drift apart in their amusements. Now women, being far more susceptible to hysterical influence than men, become, when herded together in mobs, liable to extraordinary outbreaks of mania, under which they are capable of the most revolting conduct. Details can hardly be given in a work of this description, but the fact is that when repairs to machinery needing a man's skill require to be effected, no single workman will go into the mill-rooms, even if he were ordered to do so. Factory owners, knowing what would happen, always send the men down in two's or three's, a sufficient indication of the nature of the danger to be faced.

Things were even worse thirty or forty years ago. Any Commanding Officer stationed in Leeds, Manchester or Preston in those days can confirm my statement; so far as they are better now the credit for their improvement belongs to the effort made by the founders of the Volunteer movement who seem to have grasped the human nature side of their business rather better than their successors.

The essence of the whole matter is that human beings must be handled in conformity with their human instincts, and the fundamental instinct is that the sexes should find it worth their while to make themselves mutually attractive the one to the other, for there must be attraction before there can be love, though the lowest class of sexual passion can and does spring up even in the most revolting of surroundings.

Women with no man's admiration to dress for become slatternly drabs. Men under the same conditions degenerate into the unspeakably foul and stinking type one sees not only as corner loafers but even amongst the well paid artisan class.

Teach a man to hold himself up, give him a coat in which he is not ashamed to be seen, and a woman will dress and keep herself clean to attract him, and in proportion as she succeeds in this aim, the two will learn to respect one another. This mutual respect becomes the best guarantee for a happy home life, and the consequent reduction of that most appalling blot on our civilisation, the terrible mortality among infants.

The proof of my contention can be seen by the startling change which has come over the Regular Army and the Navy since the abolition of the Contagious Disease Act in garrison towns in 1884. In common with most soldiers at that time I looked on its repeal almost as a crime against humanity, but though I still do not accept the arguments of those who led the agitation against the law, careful observation has since convinced me that I was entirely in the wrong.

As long as those Acts were in force, no decent woman dared to be seen in company with a redcoat or a sailor—it exposed her to the risk of being blackmailed by the police—and the young soldiers finding themselves thus cut off from all associations with their respectable woman friends and their families, were driven to the very lowest haunts of vice and drink. No sooner, however, was the Act removed, than the sexes came together in a perfectly natural manner, and one saw the soldiers and sailors walking out with the very pick of the women of their own class. Of course they fell in love with one another, but as this was *bonâ fide* love and not mere sexual attraction, the soldiers and sailors far more often proved the girl's best protector, not her betrayer. Chivalry towards women is by no means limited to the upper classes only, but chivalry needs some kind of an ideal to awaken it, and a frowsy mill girl, stumbling half awake to her work in the early hours of the morning, or returning unkempt and

bedraggled at the end of the day, is hardly the stimulus likely to set it in motion.

The Volunteers have certainly done much to improve matters in the manufacturing towns during the last forty years, but of late there has been a tendency to deprecate the social side of the movement, which I think has gone too far. Under the scheme of development of our building resources which I have outlined above we should not only bring the women to take a living interest in our existence, but indirectly they would contribute financially to our support, and above all things they would bring us a better supply of recruits.

On one point I am convinced: no Western nations can afford to dispense with the goodwill of its womenkind in its defence of its hearths and homes. The women must be worth dying for before men will risk the sacrifice, but what they will dare when their women prove worthy, the records of the American Civil War are there to prove. The South was the home of chivalry, and its women proved worthy of the respect in which they were held. In the North, it was not till the women in Washington literally spurned the runaways of Bull's Run from their doors, that the men could be induced to submit themselves to the discipline and training which they needed to enable them to beat their enemy.

Napoleon ignored the women of France, and in return they brought about his downfall. They hampered his recruiting by every expedient which the wit of woman could devise. It will always be so where the organisation for defence of the State ignores the power of silent pressure which the mothers and wives of a country can exercise. One may have to stoop to many petty trifles in Peace to preserve their sympathy; balls, ceremonials, fancy dress, distinctions of uniform, things I confess utterly repugnant to my mind and to most thorough soldiers, but one learns by experience that in the long run the man who neglects them is a fool for his pains, and in time they will learn to act as our valuable coadjutors on broader lines and from less frivolous motives.

CHAPTER XVIII

THE GENERAL STAFF AND WAR OFFICE ADMINISTRATION

Every few months we are treated to flaring newspaper contents bills announcing the creation of a new General Staff, and in the papers themselves to editorial comments thereon, praising or decrying, according to their party allegiance, the merits of the new design.

Yet these changes bring us but little nearer to the true ideal, nor will they until the real genesis of the original on which they are framed is better understood. The very essence of the Prussian 'Great General Staff,' in the form it has now assumed, lies in the fact that it is an unconscious growth which has arisen out of conditions that appeared subsequently to its inception and were unknown to, and therefore not to be predicted by its original founders. The idea of an academy in which officers should be taught the higher branches of their profession is an old one. There were schools all over the Continent, official and unofficial, long before the days of Napoleon.

It was not until the growth of the monster armies, based on Compulsory Service, and conditioned by the success of the French Revolutionary and Imperial forces, that the idea embodied in the title 'Chief of the General Staff' obtained its present signification. It was an absolutely natural response to the need that some equivalent should be found for the extraordinary capacity—the powers of work and command combined possessed by Napoleon. These were so great that they compelled his opponents to create a counterpoise. They could find men endowed with the power of command but with limited abilities in other directions; and they could produce others with general ability but lacking the personal mag-

netism of command. Therefore it was natural that they should seek to combine the two, that the one might supplement the other.

Since Napoleon's extraordinary genius for detail, as well as for the broadest conception of the whole of a plan, enabled him to accomplish easily the work usually allotted to four or five men, it became necessary to give each Commander of an Army a group of four or five assistants, who each controlled one department and was responsible to the chief of the group for his work.

Napoleon, of course, employed Staff Officers too, but the essential difference of his method lay in this: that he employed them as clerks merely to draft out and despatch his orders—whereas in Prussia the Staff were advisers, whose advice the Commander accepted or rejected at his peril. He did not formulate the scheme, but he took the responsibility of carrying it out.

It will be seen at once in what a delicate situation this placed the Commander and his Staff one to the other, and the absolute need of a superlative loyalty on the part of the latter to the former, if the system was to work satisfactorily.

Fortunately the terrible condition in which Prussia was placed when the system was introduced favoured the evolution of the necessary qualities, for in moments of such universal suffering men will readily place themselves in the background for the common good. Once the tradition was established, it possessed sufficient vitality to endure, until a Monarch, loyalty to whom was easy to all men, again took his place as actual, not merely titular, head of the Army.

It needed, however, beside the King, a man of most exceptional personality, strength, modesty, and self-restraint all combined in one, to render the Staff tradition a working success. Fortunately these qualities were all united in von Moltke. His example made him the idol of his own department,[1] and ensured that any attempt on the part of the young Staff officer to exceed the limits of his office would meet with the severest censure on the part of his colleagues.

Most fortunately also Moltke retained his intellectual

[1] See Verdi du Vernois, *Im Grossen Haupt Quartier*, 1870.

vigour long enough to create a sufficient school for the future Corps and Divisional Commanders of the German Army, for otherwise the system would have proved more than human nature could endure.

The extraordinary confidence reposed in him by the Emperor William I., and his conscientious discharge of all his duties, set an example to the whole Army that conditioned the spirit in which all who aspired to come under his influence performed their work. Men did not arrive at Staff employment under a General by passing examination only. They were sifted by their own comrades and regimental Commanders besides—for no regiment cared to risk its reputation by putting forward a wastrel, only anxious for a snug billet; and in the years succeeding the two great campaigns, 1866 and 1870–71, men of the requisite character were not hard to find. By degrees, as the generation of older Generals passed away, their places were taken by men trained under Moltke's own eyes—and it became possible to lay down the rule that only men who had served in the General Staff with distinction were eligible for Commands.

This was the essential link in the whole chain, for otherwise it was not, and is not, in human nature that such a system should work satisfactorily.

The young Staff officer on joining his Command is kept in his place, because he knows that his General also has been through the same training, and by riper experience can teach him many things—consequently he is ready to learn, and is not anxious to teach his own undigested wisdom.[1] For this reason he can safely be entrusted with considerable responsibility, for there is the best guarantee possible that he will not overstep the limits of discretion.

With us, however, this guarantee is wanting. Our Commanders never having had to control Armies exceeding the capacity of one able man to direct, have not themselves experienced the need of expert advisers in the same palpable form—therefore they have not acquired the habit of using them—moreover, there being no continuity of service con-

[1] 'Knowledge dwells in minds replete with thoughts of other men, wisdom in minds attentive to their own.'—George Eliot.

ditions as with the Germans—War being after all a better field of selection for Command than the school-room—it has hitherto been quite impossible for us to confine commands solely to Staff College graduates. Hence when, as very often happens, one of our Commanders who has acquired his rank by service in the field has a graduate of the Staff College assigned to him without any voice in the selection, difficulties are very apt to arise.

Let me state a typical case to make the matter clearer. A General Officer has fought his way up through service on the North-West Frontier and in Egypt, let us say, and by practical experience he knows all that there is to know of the conduct of hostilities in such countries, but he has had neither time nor opportunity to become acquainted with contemporary European methods. He is then appointed to a command in South Africa, and a distinguished Staff College graduate, thoroughly acquainted with the European standards of training, fighting, etc., but ignorant of Egyptian and Indian practice, is posted as Chief of his Staff.

Both have had no actual experience of South Africa, the nature of the country, or the style of warfare used by Boers or natives. Now imagine the result. It is conceivable, of course, that each would recognise his own limitations, and both would frankly co-operate for the common good—but it is improbable, to say the least of it. Most likely each will look down upon the other—the General on his Staff Officer as a pretentious young theorist, the Staff Officer on his General as a stupid old obstructionist; and since both, under strange conditions, are bound to make mistakes, each will find plenty to confirm his fundamentally biased opinion of the other's shortcomings; their antagonism will become more pronounced, and in the end the Service is sure to suffer.

Even in Peace time this system is bound to create friction, and it is certain to do so until the same uniformity, of origin at least, is established between the Staff and the General. How under our conditions this problem is to be solved is, I confess, beyond me, but emphatically never by the issue of a Ministerial 'ukas.' The conditions of our Service seem to me to interpose almost impassable obstacles. There must

be an age-limit fixed for the Staff College, and only a relatively small number of Officers can be spared from any one battalion at a time to attend it. But the chances of active Service occur so irregularly, and it is so impossible to pass over the proofs of capacity for Command given by men in face of the enemy, that the possession of a Staff College certificate can never, with us, be made the indispensable condition for promotion to the higher Commands. It is enough to look at our present Army List for proofs of this contention. Taking even the best known names, how few of their owners could have found time or opportunity to obtain such a certificate?

Lord Kitchener could never have been spared from the important duties for the execution of which he has been famed, and even assuming that both Sir John French and Sir Ian Hamilton might have found the opportunity it could only have been by the chance of a Staff College vacancy for their Regiments happening to coincide with their momentary freedom from active service, or some other pressing duty.

We might mitigate the evil, it is true, by placing all officers on one general list, as in Germany and in India, and then posting those who had passed the Staff College to do duty with the Regiments—not merely to be attached to them for instruction, as at present. This would set free one-half the Officers at present under instruction at any one time, but this would be to make competition far harder, with the probable further result that every place would be taken by the Engineers and Artillery, a consequence which, as I have pointed out above,[1] would be by no means for the greatest good of the Army.

It seems to me, however, quite possible to harmonise all our difficulties by imitating both the French and German practice in the creation of a true Military History Section of the General Staff, through which at some time or other of their service all officers destined for the higher Commands should pass, and to which all retired Officers who have shown any marked tastes for inquiry and research should be affiliated. Primarily the junior members should be employed in collecting data relating to our many campaigns, so that they might

[1] See Chapter IX.

learn to appreciate the facts, and the generalisations from those facts, on which the scientific treatment of all military problems are based. The older men need not be subjected to this drudgery; but it is *absolutely essential that all should be made to understand the radical difference between true expert opinion based on an exhaustive knowledge of facts, and public opinion founded only on the last sensational headline of some irresponsible newspaper.* This warning may seem superfluous, but twenty years' experience in the combat of the wildest theories originating from isolated occurrences imperfectly reported, have convinced me of its necessity, and I have the weight of all the authority of the French and German Staffs to support me.

Those Officers, of course, who showed a special aptitude for this line of investigation should be noted, but not removed from the active duties of their profession. On the contrary, they should be encouraged to gain fresh first-hand experience, and the permanent nucleus of the teaching and writing body should be made up of men who had retired from the Army, or in consequence of wounds or sickness were no longer fit for duty at the front.

This would give continuity to the whole system, and allow of men taking up, and really mastering, certain special epochs and campaigns. At present no Officer on the active list can possibly afford the time to absorb and understand the details of any campaign or subject. Four years for the study of the Napoleonic Strategy is hardly enough to read hastily through even the Emperor's correspondence, still less to form an opinion upon it; but that is the outside time which any Officer on the active list can get, and in addition his day is fully taken up with routine duties of organisation which have to be discharged whatever else may suffer.

This simple solution of our difficulty has not yet presented itself to our responsible organisers, because we are still governed by the old-standing tradition that the active list exists to share all the money that can be extracted from the Treasury, and not to administer it to the best advantage of the country.

Further, it is in this way only that we can establish a

sufficient weight of authority to guide public opinion. This is the special function which the Prussian Staff perform so admirably, and it has grown, almost unconsciously, from the formation of the Military History Section. Certainly its founders never foresaw the need to be supplied, for the conditions which have created it—the growth of the Press, the evolution of the telegraph, etc.—at that time were in the womb of the future.

Thanks to this weight of authority and continuity, the proposals of the General Staff for the development of the striking power of the Nation encounter but little of the senseless opposition which we in England too often have to deal with. Nearly two-thirds of the male voters know what the General Staff is, and how unremittingly it works for their well-being, consequently are content to acquiesce in its conclusions. Certainly, as I have pointed out in Chapter IV., on 'The functions of the Volunteers in Peace,' the absence of free criticism may, in many instances, lead to stagnation; but in matters of organisation, of numbers and administration—the principal questions that come before the Reichstag for decision—the Staff is the one organ which can speak with unimpeachable authority; and this only because it possesses numbers and continuity.

If the need in Germany for such an institution is great, it is, however, far greater in a country whose Military operations cover so vast an area, and are conducted under such widely differing conditions.

We, of all nations, need a 'Clearing House' for our military ideas. We want to bring our Officers from all quarters of the globe under one roof, and compel them to thrash out their points of variance.

To make the matter more luminous, imagine a proposal put before a Board of locomotive superintendents, drawn, let us say, from the North-Western, the Great Western, Great Northern, the Indian Great Eastern, and half-a-dozen representatives of the various mountain and narrow-gauge lines in India and the Cape—the proposal being to design rolling-stock for a new railway in a strange country, with very imperfect data before them. Imagine, further, that this Board are

conducting their enquiries by correspondence. Now, as it is a well-known fact that no two locomotive superintendents in England can be induced to agree as to the best all-round pattern of locomotive even for English requirements, what hope would there be of an agreement being arrived at in reasonable time between these experts whose experiences were so widely separated in point of space, of climate, and so forth?

Yet this is what we expect of our Generals each time that a new book of regulations is placed upon the stocks. Men who have gained their experience in Africa, in Afghanistan, in Egypt, and the West Coast are asked to contribute each their quota to the common stock. Ultimately it falls to the lot of some relatively junior Officer (in one instance, I am credibly informed, it was a young Staff Captain, who happened for the moment to have nothing more pressing in hand) to digest the material thus collected and bring it into harmony with the prevailing vague generalities on European tactics, which he may have picked up by indiscriminate reading in magazines and the daily Press, or from hazy recollections of his Sandhurst instructions. Then the rough draft is sent round to the various Commanding Officers for approval, and finally a pitiful non-committal handbook is turned out, without any skeleton of reasoned-out principle to hold it together. Here there is a section translated bodily from the German, pieced in without any reference to its context in the original; there a new formation, figures and all adopted boldly from the French; and finally, for use in savage warfare, some recollections from the Seven Years' War and the Peninsula—sound enough as far as they go, but in flagrant opposition to the prevailing tendency of the whole work.

The general excuse advanced for this state of things is that 'an ounce of practice is worth a ton of theory.' This might be reasonable enough if the ounce of practice had been objectively and not merely subjectively reported. To show that this has been the case, let me analyse the fundamental conception underlying the bulk of our official tactical literature. Briefly, this may be formulated as the 'increased fire-power of modern infantry,' and this had its origin, as already explained above, in the eye-witness reports of the effect of

breechloading fire as first seen in the Bohemian and Franco-German campaigns.

Now subjectively, we know that these were true enough; eye-witnesses did see men falling by hundreds as the assaulting lines endeavoured to close with the enemy, but we now know on incontrovertible evidence (see above, Chap. XIV) that a very large number of the men seen to fall were by no means dead, not always even wounded. The spectators were, in fact —though they were not aware of it—in the presence of the phenomenon, known in the German Army by the expressive name of 'Die Massendrückebergerthum,'[1] a phrase for which we have no adequate expression in our own language, but which may be freely rendered as the 'tendency to skulk in masses.' Now let us see how this phenomenon alters the objective truth of the whole situation. We can appeal to official statistics for our facts.

When the killed and wounded returns of the campaign first mentioned and others began to see the light, it became perfectly evident that the losses both in Bohemia, the Franco-German War, and the Russo-Turkish War, were not only far below those endured in the Seven Years' War, the later campaigns of Napoleon, and the American Civil War (when battle was compared with battle and both reduced to the same time standard), but that even locally, when isolated units had blundered into impossible situations, their punishment had not been as sudden and devastating as in the earlier campaigns. The breechloader as yet (including Manchuria) can show nothing nearly so sudden and dramatic as the destruction of the Imperial Guard at Waterloo; and, whereas only two German Infantry regiments lost over 50 per cent. of their numbers in a single battle in 1870, more than fifty Confederate and Federal regiments attained that distinction during the campaigns from 1862–64 when fighting against the old muzzle-loading musket.

These figures alone were sufficient to cast suspicion on the powers of the breechloaders; meanwhile, we, in our many minor campaigns, were accumulating other evidence

[1] A Drückeberger is a skulker, a man who flattens himself down as a hare does in its form.

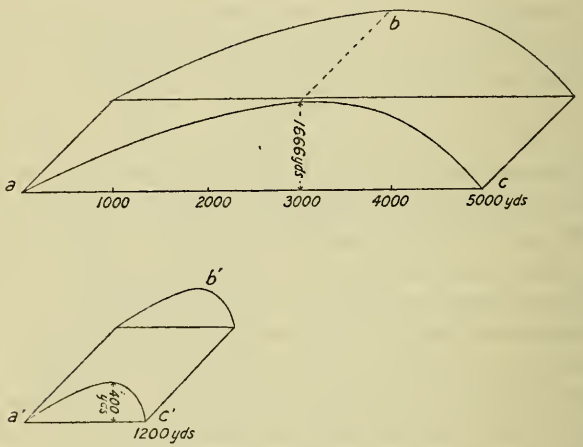
and all to the same effect. For generations it had been an axiom that the fire of an unshaken Infantry square, *i.e.* one not demoralised by previous shell-fire, was sufficient to stop outright the charge of even first-rate Cavalry; the few exceptions serving only to confirm the general rule. But if unshaken Infantry could stop Cavalry, *à fortiori* they could equally shatter the rush of savages; for no Infantry can charge home with the speed and momentum of a Cavalry horse. But now, suddenly, Ghazis, Zulus, and Mahdists were found to be quite capable of feats previously considered, and proved by experience, to be quite impossible against the old smooth-bore musket.

The suggestion that our men were no longer as staunch as their ancestors proved altogether untenable, when age, length of service, and manifest goodwill were considered. Moreover, the same misfortunes had happened to other nations. The French Infantry at Vionville were probably in every respect as reliable as the bulk of the old Napoleonic foot-soldiers in Egypt and Syria, yet Bredow's brigade of six squadrons attacking across 1,200 yards of open, had ridden them down with quite insignificant losses in the charge itself; whilst at the battle of the Pyramids and Mount Tabor their ancestors had been proof against the most determined charges of the Mamelukes and Turks, who certainly charged home with greater velocity than any of the Ghazis or Mahdists whose rushes we have had to face, and with an equal contempt for death. This all pointed to the presence of some new disturbing factor whose origin and influence had to be traced, and presently (about 1896) I found the solution by considering the consequences which happened when a shake or quiver of the hand put the sights of a long-range rifle off its target; and then comparing these with what happened during the use of the old smooth-bore musket.

Suppose, for instance, that an excited man pulled the trigger of his musket whilst throwing it into his shoulder, the muzzle at that instant pointing upwards at 33°, the angle of elevation for maximum range, his target really being only 200 yards in front of him. Then, since the extreme range of his weapon was 1,200 yards, the bullet would fall only

1,000 yards beyond the target. Under similar circumstances with any modern rifle it would go about 5,000 yards [1] farther, and at whatever other angle he might discharge his piece, the bullet would fall somewhere between these limits, since by hypothesis it could not go farther.

Now imagine a line of men all highly excited and all discharging their weapons in the general direction of the enemy, but with every possible variation of elevation between the horizontal and 33°. All their bullets would sweep through a volume of air bounded by the ground on one side and a curve drawn through the outermost bullets above and on either side.



Now the height attained by a bullet in flight when fired for maximum range is roughly one-third of the range covered, *i.e.* with the old musket 1,200 feet, with the new rifle 5,000 feet. Therefore, during continuous firing, at any given moment the air contained in the figures formed by the lines *a*, *b*, *c*, will be filled with bullets dotted about like currants in a cake, and if the number of bullets in each be equal, then the currants will be much closer together in the smaller figure than in the larger

[1] The actual extreme range of the modern military rifle has, I am informed, never been accurately determined. Experiments were made over the Maplin sands, but the first graze of bullets could not be picked up; it is certainly over 5,000 yards.

one. Now the volumes of the two figures being to one another roughly in the ratio of 1 to 60, it is clear that in order to make the danger of exposure during any given unit of time equal in both cases, then sixty times as much lead must be poured into the larger as into the smaller space.

The rate of fire of the old smooth-bore muzzle-loader averaged in Frederic the Great's day three rounds a minute; to create equal danger during an equal unit of time the modern rifle would require to be fired 180 times in a minute —*i.e.* about ten times more than in practice it ever is.

This is assuming the men to stand equally close to one another in both cases, but this is a condition practically never fulfilled, except in savage warfare. Generally a firing line of one rifle to every five feet is considered sufficient, whereas in the old line, which stood two or three deep, it was either five or seven muskets to the same space, so that in comparing the fire power of past and present formations the above figures have to be multiplied by five and seven respectively, which brings us to the somewhat considerable figures of 900 or 1,260 rounds per rifle per minute to establish a danger zone equal to that of the old days. Now we begin to understand why the old squares so often proved unapproachable, and how it came about that in South Africa and Manchuria incidents occurred in which both sides pumped lead into each other with hardly any noticeable result. In the latter case, at any rate, on one occasion both Japanese and Russians took to throwing stones [1] at each other, in the hope of arriving at some result.

Now though in practice this condition of entirely random fire is not often reached, there is nevertheless a steady deterioration in the accuracy of the fire from the commencement of the engagement, when men are still cool and collected, until the final crisis, when after hours, or it may be days, of extremest nervous disturbance and physical suffering, half blinded by smoke and the dust torn up by bursting shells—all aimed fire ceases to be possible. Then it becomes pure chance, and chance only whether a particular bullet finds its billet or not. The 'fire power of modern weapons' is therefore not a constant quantity as our Regulations imply, but a

[1] See Sir Ian Hamilton's *Diary of a Staff Officer*, vol. ii.

most highly variable one, the limit of variation being many times greater nowadays than it used to be; and whether in any particular case it proves deadly or the reverse, is mainly the consequence of the assailant's choice of his opportunities. If he chooses to throw his men away against an unshaken enemy waiting to receive him, he will be destroyed promptly, just as were the French knights at Crécy or Poictiers. But if he understands the power of the three arms, it follows from what I have said in Chapter III. that, thanks to this increase of range which has tended to diminish the power of Infantry fire in defence, he has immensely greater power of creating conditions to suit his purpose than our forefathers ever enjoyed in the past.[1]

This conclusion, viz. that the power of the General directing an attack has been enormously intensified by the increased range of modern arms, carries with it a strategic consequence which so far has escaped all notice even on the Continent.

In all strategic manœuvres time is the principal factor, and in the Napoleonic system as now taught by the French General Staff, it is shown that Napoleon himself fundamentally relied on the self-sacrifice and endurance of his advance guard, or retaining force, whichever it might happen to be, to gain time for him to execute the manœuvre by which he designed to shatter his enemy. By degrees this idea became familiar to all Armies, and from experience in the old days it was laid down that a Division, say 12,000 combatants, could not well be destroyed by reasonable odds in less than five to six hours, whilst a Corps of 30,000 could be relied on to hold its own for a whole day.

These ideas became constant in all Armies, and on the whole the experience of 1870 confirmed them.

Both the Russians and the Japanese adopted them, and practically all distances and intervals between Divisions and Corps—hence all time calculations were based on their assumptions.

But the result of the first employment of long-range quick-firing guns with shrapnell shell, entirely altered the

[1] See Diagram V, fig. 3.

very foundations of their several designs, and imported into their battles an unknown factor which gave them entirely new characteristics.

Thus at the Yalu the Russians, considering that their advance guard on Suribachyama could at least hold out for several hours against a four-fold numerical superiority, posted their reserves some six miles to the rear, and every Staff Officer in Europe would have considered this a perfectly reasonable supporting distance.

The Japanese, determined to leave no possibility of failure for their attack, concentrated an overwhelming weight of Artillery against Suribachyama and sent the whole of their XIIth Division to march round the enemy's left flank. The latter were, if unopposed, to strike the road in rear of the Russians about 2 P.M.—so the Japanese, calculating that it would take them about four hours to overcome the Russians in front of them, launched their attack in the usual German formation about 10 A.M. But so overwhelming was the effect of the Japanese Artillery, that the Infantry assault was not checked for a minute.[1] Instead of the prolonged fire-duel that all expected, the Russians, in the face of the hail of shrapnel beating in their faces, could scarcely raise their heads above their parapets to fire, and in a few minutes the Japanese had raced across the open plain, and by 11 A.M. had the whole position in their hands. Then their turning movement executed punctually as arranged, the XIIth Division found itself practically too late for effective action, *i.e.* action commensurate with their strength.

Similarly at Liao-Yang. Kouropatkine, who had planned his defensive battle entirely in accordance with French ideas, lost his opportunity in turn by the same miscalculation.

Of his seven Corps he had posted three to cover the town of Liao-Yang directly, whilst a fourth one manœuvred against Kuroki and the 1st Army, with the direct intention of enticing the latter out of the mountains into the more open country about Yentai, and he had kept the remaining three Corps in reserve to fall upon the latter at the critical moment. But the

[1] See in confirmation Sir Ian Hamilton's *Diary of a Staff Officer*, vol. i.

power of the Japanese attack on Liao-Yang proved so much more rapid in its action than had been anticipated that he was unable to keep his reserve in hand, and had to expend it in resisting the direct attack. Thus, when the crisis came, he had only Orloff's detachment available to support his left, and this, through the accident of command, was so badly handled that it arrived too late. All through the campaign similar miscalculations on both sides occurred, with the result that in no single instance was the conception of the modern *Battle of Decision* realised, but situations were evolved which will for years to come, in England at any rate, be put down to the deadliness of the weapon, and *not to a miscalculation in the manner of its use.*

What the result will be we can gather from the past; false deductions will be drawn as to the relative value of the three Arms; false teaching as regards their employment, and ultimately false data submitted to some future War Minister out of which to reorganise the Army.

The corrective to apply would be the Military History Section I have suggested, with a further addition that I have kept to the last.

The work should not be entirely book study, or visits to manœuvres, but all Officers attending should go through a course of detailed War Games, in which by degrees all possible or reasonably probable situations in which a British Army may find itself, either at home or across the narrow seas, should be worked out again and again, and every possible situation thoroughly discussed.

A beginning has already been made in this direction, but it seems to me that the essential feature has been neglected, viz. that the Officers should be kept together, if not literally under one roof, at any rate in one particular garrison, and that these games should not be interpolated in the ordinary daily routine.

What I have seen happening in many instances lately is Officers after a ten days' Staff ride hurrying back to their garrisons to make up arrears of routine work, and putting all consideration of the problems just propounded to them out of their heads until next time. Simply because the daily work

must be done, the other and almost the most important can wait.

This method, the reunion of selected men under the same roof, was pursued by Moltke in Berlin, and from my knowledge of the working of that system, derived from friends who passed through it, I am convinced it would have equally favourable results with us; indeed, I and several of my friends attempted it as far as we were able some years ago; but the Boer War drove us all asunder, and most of the best of the little group will never again return. Still, the results we obtained, in spite of the pressure of other avocations, were so promising that I am confident the scheme would succeed.

In whatever way, however, a General Staff may ultimately be provided, two conditions it must fulfil, before serious progress in Organisation and Reform becomes possible: it must have continuity and numbers.

Given these, and any able man, accustomed to employ experts, might reasonably succeed as Secretary of State for War.

The simplest way in which the public can realise the several functions devolving on our Heads of Departments, Secretary of State, and Inspector-General, is by the analogy of a great steam shipping company. The Secretary of State is the Managing Director responsible to the Board of Directors (the Cabinet), ultimately to the Shareholders (the Nation).

It is not necessary, indeed it probably never has happened, that a managing director has been an expert seaman, naval architect, naval engineer and boiler maker, hotel manager, caterer, etc., and it is absolutely better that he should not be a specialist in any one of these branches, as in that case his sense of proportion might suffer. Similarly it is not necessary, or even desirable, that the Secretary of State should be an authority on Infantry, Cavalry, and Artillery, but it is most essential that he should know the human nature of the soldier, and the attitude of the civil population to the Army in general. Nothing more need be required of him if his experts know their business and the General Staff have

evolved some simple plan for placing results graphically before him.

In business the matter is simple; curves of results for the whole, curves of expenditure for the several branches, make it possible to detect the consequences of want of proportion in any one branch.

But it is not so simple in Army matters, though I hold that by tentative methods a satisfactory system could be arrived at.

I would suggest first the preparation of a National Capital account going back for a period of a couple of centuries, and giving the estimated present value of the countries our fighting forces have gained for us; and the money—we cannot estimate for the lives—sunk in their acquisition.

Next the increased cost due to neglect of suitable precautions and preparations, with a detailed analysis of the many incidents. That, at least, would show us the general result over a term of years and indicate infallibly in what direction it would pay to sink capital now. An example will serve to make the matter clearer. For some years past I have been endeavouring to induce the Government to purchase an invention, the property of an old friend of mine, by which food of all kinds can be stored for many years without any loss of its nutritive qualities, and a reduction in weight is secured varying from 80 per cent. in meat, to 92 per cent. in some vegetables. Of course there are many different kinds of desiccated foods already in the market, but this process differs from all others in the fact that the food is preserved raw with all its flavour concentrated within it.

Actually all the Government reports on the samples submitted have been most favourable, but the acquisition of the whole invention would involve a very considerable outlay, which would have spoiled the symmetry of any Government's estimates.

It was accordingly necessary to produce some kind of proof of the amount of saving my proposal would create, and, in order to accomplish this, I went over the records of the number of men engaged during our campaigns of the last thirty years, number of days for which rations had to be provided,

and mean length of haulage. Of course, my solution could only be a rough approximation; but, taking the minimum calculation, I was able to show an average direct saving of half a million sterling per annum; whilst the indirect saving arising from the increase in mobility, due to reduction of bulk and weight carried, practically exceeded computation.

I think no Officer to whom I have shown my figures has questioned my contention that the use of these foods in South Africa would have diminished the duration of the Boer War by one half at the very least.

Rough as my figures necessarily were, they were, nevertheless, sufficient to enable one to form a business idea of what it would be worth while to pay for the invention, or whether it might not be better to offer the inventor a retaining fee to stock a sufficient quantity of his foods, to be available as a first reserve to meet the strain of mobilisation.

I imagine the former to be the better plan, as it would deprive the enemy of any chance of acquiring equal mobility —an advantage not easily over-estimated—and the secret, being somewhat in the nature of the secret of playing the violin, easy to explain but most difficult to imitate, might have been safely kept for any number of years.

I quote this case only because it came under my own personal observation, and, together with others, convinced me that the proper commercial machinery for administering the Army was practically non-existent at present.

I would apply the same method to the organisation of the Army; for instance, in times past we have suffered prolonged expense and delay in the execution of campaigns through insufficient provision of Cavalry or Artillery, as the case may be. I would take these situations, as soon after their occurrence as possible, and have them fought out on the map with revised proportions of the several Arms, and note the reduction of time and consequent saving of expense that would have followed.

Something in this direction, notably with the question of horse and mule breeding in India, actually has been accomplished; but even there the system is only in its infancy, and, it is to be feared, will remain so; for adminis-

trators always seem to consider the last campaign as absolutely final, and though all history proves their folly, they persist in refusing to prepare for the inevitable 'next time.'

Of this, however, I am quite certain, viz. that if the Military General Staff would call to its assistance some of our great engineers accustomed to dealing with the finances of Famine prevention in India and its relief, the diminution in the cost of Wars over a term of years would be quite remarkable.

Having dealt with the National Capital account on the broadest lines, and established statistical data for reference, I would next prepare a specifically 'War Office Capital Account,' on which should be shown as assets the present value of all the barracks, drill-fields, and manœuvre grounds in the Empire, and the amount actually paid for them.

The result, I venture to think, would be amazing. There are thousands of acres of eligible residential estate on the South Coast in War Office charge, but totally useless for the purpose for which they were originally acquired.

The country round Aldershot cost the War Office in 1854–5 7*l.* 10*s.* an acre. Since the troops came there and developed it by attracting population, making roads, etc., it has gone up to about 200*l.* an acre for frontages, and an all-round value of about 50*l.* for further development.

All over the Northern district, in Manchester, Preston, Leeds, Sheffield, etc., and even in London, there are barracks with drill-grounds attached worth as much as 10*l.* a yard, of which the public knows nothing. But out of the proceeds realised by their sale, modern barracks in healthy and suitable localities could be built, to the enormous gain in popularity of recruiting, and the general tactical efficiency of the Army. It is about fifteen years since I first put forward this suggestion; but as yet apparently without result.

The point must never be overlooked that the Army, by reason of the power it possesses of concentrating a large body of men wherever it may desire to place them, and improving the spot by military labour (which might be usefully employed to a far greater extent than it is), can always attract a civil

population around it, to minister to the needs of the troops, thus enhancing the value of the whole of the surrounding district.[1] If the spot chosen is at all favourable, then, in new countries, the civilian population soon outnumbers the troops, fresh industries spring up, and as the value of the land rises the Government blocks in the vicinity of the town can be sold off, and fresh ground acquired for barracks, etc., at a little distance out in the country. This might now be done, as suggested, at Leeds and Manchester. Or in an entirely new country, Government might, from the first, reserve blocks intentionally, in the same manner as has been done on the Canadian Pacific and other colonial railways. (See also Chapter XIV.)

If this system had been pursued, let us say in Canada, in years gone by, the value of the properties thus acquired would by this time have run into many millions—enough to build all the barracks, schools, and colleges we now require. Government in such cases has the first choice of sites, and troops will always be placed in positions of strategic value, *i.e.* where roads or waterways converge; and as the country develops, these places tend to become the great centres of railway and steamship concentration, sending up the price of all the land in the vicinity to many times its original value.

Generally, statistical information should be worked out, and for this purpose I would call in the aid of the highest civilian authorities to compare the wealth-producing value of the trained soldier, his expectation of life, and chance of arriving in the workhouse, with those of the trained civilian. I have already alluded to Sir J. Whitworth's evidence given many years ago, and I consider it as below the average of present-day experience. The proportion of civil crime in both classes should also be taken into account. Further, notwithstanding that we are still in an age of transition, notwithstanding the fact that our records under all heads would have to be reduced by the elimination of numbers of old long-service men prematurely broken down in the days before hygiene had lessened the invaliding and death rates, I venture to think that a far

[1] See also Chapter XIV., on the Regimental Colonies in Canada.

stronger case could be made out in favour of military service than has ever been presented in justification of the immense sums expended on Primary Education.

I do not, of course, question the value of a certain amount of Primary Education to the State, but I do contend that what is sauce for the goose is sauce for the gander, and if it is fair to class 'moral and intellectual' improvements as a national asset, the gain in character, concentration, and general health should equally be credited to the Army. Of course, in the term 'Army' I include all branches of the fighting Services, and I would have similar figures prepared for each. With these behind him, a Secretary of State would find it far easier to defend his annual budget than under his present difficulties.

If the Secretary of State stands to the Army as the Managing Director to the Board of a great Steamship Company in the analogy I have already used, then the Inspector-General holds the same relative position as the Lloyd's surveyor.

But Lloyd's surveyors are bound by certain rules which obtain general acceptance because based upon scientifically established principles. It follows, therefore, that without the section of the General Staff I have demanded for the express purpose of discovering and formulating similar general rules, we can have no guarantee that his duties can be carried out either to his own or to anyone else's satisfaction.

However sound the Inspector may be (and I should unhesitatingly accept the present holder of that office as the best-informed soldier the Army has as yet produced), he is at present at the mercy of every change of opinion to which the 'sensuous impression' of the next battlefield may give rise. Practically his reputation is in the hands of the first newspaper which, in the event of War, can catch public opinion by the audacity of its headlines—'Awful slaughter, etc.,' 'Aldershot methods again condemned'—and this is what actually happened during the South African campaign; indeed, more or less after every minor disaster of the past twenty years.

Against this form of attack a man in such a high position is quite powerless; for if it is only blatant enough, it may, as

we know by experience, infect the whole Army, and undermine all confidence in its leaders.

Incidents far worse than any I can recall in the South African Campaign, happened again and again during the Franco-German War, but the German General Staff held its peace until long afterwards; and the trained military common sense of the German people (though it could not help knowing that there had been blunders and mistakes) concluded from the silence of the Staff that these were merely the inevitable consequences of a sudden transition from Peace to War, therefore its allegiance to its Generals continued to be unshaken. I conclude, therefore, that a strong Military History Section is a primary condition of all future reform, for without it no scheme that the wit of a civilian War Minister can hope to devise will give us the Army we require. The organisation of an Army is far too serious a matter to be allowed to rest on foundations so unstable as public opinion. Opinion must first be based on knowledge—and knowledge we shall not get until the highest scientific training attainable has been brought to bear on the investigations I have indicated.

CHAPTER XIX

The Education of the Nation, and the Selection of Officers

In the foregoing chapters I have sketched in outline the measures necessary to provide us with a National Army adequate, I believe, to maintain unbroken the continuity of Peace for many years to come. An electorate sufficiently well-informed to understand that 'War is an incident in human intercourse' which can only be guarded against by efficiency in each and all of the departments of its public service, will vote adequate sums for their maintenance, and above all things will concentrate its attention on the vital element of our whole existence, the maintenance of our Power at Sea.

It will, however, also be evident that the efficiency of this machinery will be higher or lower in proportion as the ideal of education necessary for this purpose is attained or the reverse; and it will be very clear to all who have followed me thus far, that at present our factor of safety in this direction approaches the danger limit far more closely than a prudent engineer would consider satisfactory. To my mind the cause of our weakness lies in the defective general education which the public brings to the consideration of these problems. This defect places it at the mercy of every blatant windbag who, by the audacity of his denunciations or the apparent novelty of his suggestions, can obtain the ear of the Press, thereby hypnotising a proportion of its readers into accepting as proved, statements which rest purely on assertion and are not substantiated by facts.

The origin of this evil, I submit, can be traced to a fundamental defect in our methods of education, which had

its origin far back in the Middle Ages, when the literary method of teaching was practically the only one either needed or available. What constitutes good grammar or style is simply a matter of opinion, and varies apparently with latitude and longitude; what is excellent style in Russian would be execrable in German, and hardly satisfactory in English; whilst Turkish can only be paraphrased—it cannot be translated into any Western language with which I am acquainted. Spelling also is a question of custom and convenience, and the quaintest methods have been found to commend themselves alike to men of the highest ability as of the very lowest. Further, through a laudable desire on the part of our ancestors to provide by one payment food both for the souls and the brains of our rising generation, the business of teaching passed almost entirely into the hands of the clergy, who, whatever the denomination to which they belong, founded their teaching of necessity on opinion, and not on scientific proof.

Now, it is the easiest thing in the world to express an opinion, and human nature, considered in the mass, invariably finds out the way to achieve its immediate purpose, *i.e.* provision for its average wants, by the line of least resistance, and resists, with all the tenacity of which it is capable, any attempt by the individual to displace it out of its established rut.

Hence the cult of 'opinion' as opposed to 'proof' has ruled our educational establishments for the past three centuries at least, and the consequence is that the public has acquired an unreasoning respect for 'opinion' solely, which is but little removed from 'fetish' worship. Let any man, or woman for that matter, who has acquired any prestige by any act (wise or foolish signifies not at all) express an opinion on any matter, whether connected with his or her special work or not, and interviewers flock to meet them, and the Press is deluged with headlines of the most sensational description.

Once one of these opinions has taken root in the public mind, years of reasoning and research are needed to eradicate it. Further, men who have once acquired sufficient 'prestige' find it so much easier to express an opinion than to bring

forward proof, that they instinctively drop into a slovenly habit of mind, and fancy every matter can be settled by a decision that twenty minutes' reflection would convince them to be scientifically undefinable.

The following incident will show that this is no exaggeration. Some twenty years ago, being in India and suffering much from the effects of the sun, it occurred to me to try whether the interposition of a coloured screen between my body and the source of my troubles might not act as a filter to arrest the actinic rays which from observation I was convinced were the cause of the ill-effects I experienced. I selected a shade of dark red, for the same reason that had led photographers all over the world to adopt that shade for preserving their sensitive plates—indeed, I borrowed my whole idea from their everyday practice. The results were most satisfactory. I found that with this protection to my head and body I could ride with impunity through the greatest heat of one of the hottest corners of the globe—the Hurnai Valley and Scinde. Several brother Officers tried the experiment with equal success, and together we convinced the medical Officers on the spot of the soundness of our proposal.

Now as probably seven-tenths of all illnesses in India owe their predisposing causes indirectly to the sun's effects (for the solar rays in excess weaken the digestion, which in turn causes impoverishment of the blood, thus giving the intruding bacillus of disease a better chance to thrive and multiply), I imagined that this discovery would be received with most heartfelt gratitude by the authorities, as tending to lessen the constant depletion of the ranks by sunstroke and fevers, and the great expense to the country incurred in sending chronic invalids home. The exact amount of saving cannot be calculated from the returns in their present form, but it certainly amounts to many thousand pounds a year. Yet, in spite of the ceaseless outcry in favour of economy from headquarters, so far every attempt to get the plan officially adopted has been stopped, not by the opposition of the doctors, who throughout have been warmly on my side, but by the *ipse dixit* of the final authority, who gave his

opinion that 'there was nothing in it'—or words to that effect; in one instance, at least, these words were not polite, to put it mildly.

Now, this post of final authority has been held by three individuals, each very much above the average, and for one in particular I can guarantee that he was as well acquainted with the facts as I was myself, for we had both studied under the same professor. But it was easier to give an opinion than to do ten minutes' thinking; therefore the line of least resistance had the preference, and men by the hundred are still suffering from the many evils attributable to an Indian sun, the Treasury is paying for unnecessary hospital and invaliding costs, and the ranks are depleted and relatively inefficient because of the absence of the scientific habit of mind.

Nor are our soldiers the only people who think and act in this slipshod manner. It has been my fate to encounter a very large number of eminent civilian business men, and I have found them even more difficult to convince by scientific proof, and quite as ready to jump at unscientific opinion. If anyone will trouble to look up the files of the many hundred companies floated to exploit inventions which have disappointed expectations, I think he will agree with me that nine-tenths of them failed, not through the dishonesty of the promoters, but through the ready gullibility of the capitalists and the eagerness with which they accepted 'opinion' in lieu of 'proof.'

When one turns to the history of the really great inventions which have modified the course of social revolution, one finds the proportion almost reversed. Except the Marconi wireless telegraphy, I cannot recall one that secured from the outset a reasonably favourable reception. All the remainder, without exception, in England at any rate, took years of untold energy and perseverance before they gained general recognition, and the sufferings of the original inventors read almost like a record of the martyrs. Many, indeed, suffered equal persecution, and not a few have died in obscurity and poverty, true martyrs of science and victims of popular prejudice.

In the space at my disposal I cannot substantiate these statements as I would wish, but in the main they are matters of common knowledge. As illustrations of the general tendency I give, however, a couple of examples.

In 1889 I came across an invention for the consumption of smoke and the economising of fuel. The name of the original inventor was already lost. I was told he had been a workman whose employer had bought his patent for an insignificant sum and then sold it again to another who, in turn, had tired of it, and had handed it over to a friend of mine from whom I first heard of it. The idea was simple in the extreme, and the cost of all the apparatus needed quite trivial—about 10*s.* for a fifty-horse-power boiler—but its results were amazing. I saw it tested at the works of a well-known engineering firm in Southwark, and it answered its purpose perfectly. The firm showed me their books, proving an economy of 14 per cent. of fuel over a term of a couple of years, and my friend had certificates, showing equally good results, from acknowledged boiler experts.

I acquired an interest in the foreign patents, and together we went to work—he in England and France, I in Germany—but from the outset the difficulties we encountered were incredible. No one seemed to want to evade smoke-fines or economise fuel—though at that time its price was pretty high—and I confess my experience, once and for all, convinced me of the truth of the Protectionist contention, that 'the consumer pays.' Men of identically the same class as those who have so recently protested against a shilling a ton export duty on coal, considered a 10 to 15 per cent. saving on their fuel bill as an altogether contemptible bit of economy: nevertheless the total of that 10 per cent. economy on all the boilers suitable for the application of this idea worked out to the not insignificant sum of ten millions sterling per annum.

Ultimately, as a matter more of friendship than of business, I succeeded in fitting up some three or four boilers in Germany most satisfactorily. In the process I found out that in this direction, at least, the results of German tech-

nical education were no whit better than those obtained in our own schools; but at that juncture I was recalled to England, and the idea never caught on.

My friend had had no better success in England or in France; and ultimately the whole thing collapsed, and the patent has long since expired.

It is open now to anyone to use the idea, and in the interests of 'smoke-fog suffering humanity' I should be still glad to answer any inquiries on the subject. The Smoke-abatement Society, for instance, might take it up; but I feel too convinced of the lethargic indifference of the public to entertain the smallest hopes that anyone really wishes to do away with our 'London particular.'

One other instance deserves to be cited, because it is of vital importance to the food of the Nation in War time, and, indeed, all my calculations of our potential fighting-power are ultimately based upon it.

Years ago, an old friend of mine, a retired officer of the Royal Artillery, gave me his views on the subject of the preservation of food for the use of Armies in the field—a subject on which I had been making independent experiments in India and elsewhere for years. As he spoke I recalled distinctly a prediction made by Professor Abel Bloxam, our lecturer on Chemistry at the Royal Military Academy, that the man who could solve this problem of desiccating foods raw—preserving both their flavours and nutritive values—would command the biggest fortune in the world, and I realised at once that my friend was on the right track.[1] I immediately joined him, and for years we experimented together, till at length we had a list including nearly every article—fish, flesh, fowl, or vegetable—that can be enumerated. Then began the business of putting it on the market, and then only did I realise the full measure of the conservative apathy of the British tradesman and financier.

The former stolidly refused even to consider a new thing, and the latter would not even take the trouble to investigate whether it really was new or not.

[1] Compare the previous chapter, p. 356.

Yet the proposition, put forward by responsible men, was well worthy of the highest attention. For if there really was anything in the secret—and scientific evidence in its favour could be produced to any required degree—then its possession constituted the best guarantee against all War risks that could be devised.

We know that the first result of a War must be a run upon the banks, a tremendous drop in the value of securities, and a corresponding advance in the price of food. The people who will be hardest hit in the event of a great War will be the Life Insurance offices; for whilst the value of their investments must fall enormously, the claims arising from deaths prematurely brought on by anxiety, or disease resulting from, or aggravated by, general insufficiency, or the want of customary food and comforts, will increase most alarmingly. We shall be in the position of Paris, Metz, Ladysmith and Kimberley during their respective sieges, and within a year (the War cannot well last for less than two years) we shall find our death rate trebled. How long will the Insurance Companies stand against this double strain? Would it not be better to provide against the fall in the value of securities by the acquisition of the control of the food market?—the only one in which values are bound to rise.

Yet with overwhelming evidence in support of my position, which, indeed, no one has ever seriously challenged, I have found no financier capable of taking action on the line I have suggested, and were it not for the much-abused Admiralty and War Office the prospects of these islands in War time would be cruel indeed.

Thanks, however, to the measures initiated by these two Departments during the last few months, it is probable that in a couple of years' time the greatest danger this country will have to face in the event of hostilities will be definitely guarded against. Not only will it be possible to provide good and nutritious rations for the whole of the great force needed to deal with a serious invasion, but it will be possible to guarantee the arrival in this country weekly of a supply of

food sufficient to meet any reasonable demand that can be made upon us. It will not exactly be a luxurious *régime*—bread will be conspicuous by its absence from our dietary—but it will be sufficient; for no one could, under siege conditions, complain at receiving daily the equivalent of a pound of meat and a pound of fresh vegetables.

No one seriously questions that at least a third of our population will be reduced to absolute want by War within a very few weeks; and it is equally certain that a protracted defence will be impossible if these people are not fed. No one can put the probable cost of this feeding of the multitude, under existing conditions, at less than 500 millions a year; and it is more than doubtful, even if this amount of money can be raised, whether any practicable plan for distributing the food in its normal bulky condition can be devised. Yet here is a means at hand by which the cost can be reduced to about 200 millions—at any rate in that ratio—and the distribution can be effected through the ordinary parcel post without in any way congesting the railways.

Nevertheless, in fifteen years of effort, I have been unable to find a capitalist possessed of either the imagination to understand his opportunity, or of sufficient patriotism to induce him to spare the time to consider seriously the figures which can be supplied to him.

Yet these are simple enough—1,000 of these proposed rations go to a cubic foot, 40 cubic feet go to the ton measurement; and we have many 20-knot vessels capable of loading up 20,000 tons—40,000 × 20,000 = 800,000,000, so that if only one ship got through to port in every twenty days, there would be a sufficiency of food of a sort—far more digestible and better in flavour than that which two-thirds of our people are accustomed to eat every day.

It is said that the nation cannot and will not change its habits in a day, but this I submit is an error easily disproved. Hunger is an individual phenomenon, not a collective one, and we have the example of every besieged city, including even pampered Paris, to prove that people will greedily devour rats when they can get nothing better.

My object in adducing all these personal experiences is to show that I do not adopt the views of M. Gustav le Bon [1] as to the very small part that intellect, as opposed to instinct, plays in the evolution of races, without having myself accumulated abundant proof of the substantial accuracy of his conclusions. He seems, however, to take a somewhat pessimistic view of the whole subject, to which I do not altogether subscribe. In all these instances I have cited, the evil really lay in the fact that, though intellectual appreciation of the points I brought forward was always forthcoming, the stimulus supplied by this knowledge was never sufficient to induce action as a consequence. Literally, the idea seemed to go in at one ear and out of the other. No one of them seemed capable of accepting the responsibility of attempting even a simple and inexpensive experiment.

No doubt the 'experimentalist' temperament in its full development is very rare, but the germ of it exists in almost every human child, and its disappearance seems to me mainly a consequence of the defective educational methods under which we have suffered for so long. Even the immortal Mr. Squeers, who, when he taught that 'W-i-n-d-e-r spells winder,' added 'now go and clean it,' seems to me to have had a truer conception of what education should be than our present pedagogical caste. He at least wished to impress the subject of the lesson upon his pupil's mind, and to familiarise him with all its attributes!

My contention is that, as far as possible, the responsibility of taking some definite action should follow upon the perception of an idea. Up to a certain point, the training of a young naval cadet is almost ideal. He is put into a boat, told what to do in certain contingencies, also the probable consequences if he makes a blunder. And in a very short time, if he survives, his power of rapid reasoning and almost instantaneous decision becomes phenomenal. We cannot all be seamen, too many fond parents object to the risks which this method appears to entail; but I submit that an almost equally good substitute might be found in the practical

[1] *La Psychologie des Races*, by M. Gustav le Bon.

teaching of elementary field engineering on the lines followed in all battalions of the Royal Engineer Volunteers throughout the country. The essence of this system lies in the fact that certain disagreeable consequences are almost sure to follow for the individual if he neglects the instruction he receives; and the practical handling of 'things' themselves follows close upon the theoretical lesson. I have watched this system in operation with boys from the Board Schools from sixteen and seventeen years of age, and have been quite amazed at the interest it evokes and the progress they have made.

I am by no means an enthusiast for downright military drill for undeveloped boys. I consider that even physical training is scarcely practical, until we are able to guarantee a far higher standard of physiological knowledge in the class of instructors at present available. To my mind, it is even more dangerous to entrust the exceedingly delicate machinery of a child's body to a zealous but ignorant schoolmaster who has picked up in a short course a travesty of the methods employed by experienced drill-sergeants, than to give a valuable two-year old colt into the hands of an average horse-breaker. No man in his senses would do the latter, and I fail to see, therefore, why he should order the former. But the engineering training I suggest gets over all the difficulties, and dovetails into the ordinary schoolroom work as nothing else can.

In this way the boys would get sufficient rudimentary drill to enable them to form fours in order to march to and from their work and to stand steady while having the nature of their duties explained to them; but there is no danger of their overstraining their hearts and lungs in plucky endeavours to keep up in an exercise, easy enough perhaps for the older lads, but too much for the younger ones just promoted to the same squad. Excessive emulation is the danger in all collective exercises.

Children, like young horses, want lots of slow exercise and fresh air, but for the rest they are generally best left to themselves in the choice of their own games. That is to say, healthy children will instinctively rejoice in manly games,

and will derive all the training of mind, eye, and body from them that they require for their sound physical development. But they must be healthy first of all, and more outdoor work and less schoolroom is the first requisite for the acquisition of normal health.

Now this training I propose would shorten the school hours very materially, for all mechanics, and most of the practical applications of mathematics, could be taught practically out of doors to far better advantage than at present. I remember so well how I hated the long hours spent in attempting the 'solution of triangles' from Wrigley's celebrated book of examples, with all the 'ambiguous cases,' which lost their 'ambiguity' and their difficulty when once I got hold of a sextant and went out by myself to work out the problems practically. That I had to do in my holidays. I doubt now very considerably if any one of my professors at that time could have told the difference between a sextant and a clinometer, or between a theodolite and a dumpy level.

It was the same also with elementary mechanics. Having been born and bred in a West Riding town, in an atmosphere of applied mechanics and machinery, I cannot even recall the time when the ideas of levers, pulleys, screws, etc., were not familiar to me; but when we arrived at Woolwich, and the whole class had to go down to inspect machinery, guns, and similar matters, I discovered that the bookwork on these subjects in which we had all been obliged to pass had left no impression at all on most of my fellow cadets' minds, and I have noted the same thing over and over again since then.

Text-books and teachers seem to me still at fault and behind their age. Nowadays, when every boy knows practically all about a bicycle, and many of them a good deal about a motor, surely the end in view might be attained in a simpler fashion? At any rate, I commend to the attention of schoolmasters the little handbook on Military Engineering, price 1*s.*, published by the School of Military Engineering at Chatham.

Also the example of the Bedford Grammar School Cadet

Company, which is a model of what a school company should be, might be more generally followed.

Most public schools have Cadet Companies nowadays, and the change from Rifle to Engineer companies could be easily arranged. By this means the work of subsequently training the young Officer, whichever branch or Arm of the service he might happen to join, would be immensely facilitated, as he would bring with him a practical knowledge of the things about which he is afterwards examined, and which he seldom has an opportunity of handling or seeing in an ordinary Regiment, unless he attends a special class at Chatham.

Finally, this is the most economical plan as yet devised for giving practical technical training to classes. For the appliances, a few spades, picks, spars, and lashings, are intrinsically cheap, and their wear and tear is very trifling.

In workshops someone always has to pay for the stuff spoiled, and this is apt to become a serious addition to the school bills, as it is an item not very easily checked.

But if action is to follow upon the perception of an idea, then it is of the greatest importance that the correctness of the idea itself should be susceptible of scientific justification ; and this implies two very different forms of training, according as it belongs to purely material matters of fact, or is a deduction from human experience.

For both, however, a sound grounding in mathematics is essential, and by this I mean not merely the drudgery of the endless repetition of sums and elementary algebraical equations, but a real teaching of the *purpose* of the several methods.

My contention is that mathematical methods exist primarily for the purpose of expressing in short formulæ the relations existing between many variants, thus economising enormously both time and labour to the student.

For instance, in Chapter XVIII., p. 350, I have investigated an elementary problem in musketry fire, and—using concrete figures and a verbal explanation—it has taken me some hundreds of words to make it clear that the probability of hitting a given object under service conditions must vary as some function of the cube of the range,

which, in mathematical form, is expressed by the simple formula :

$$P \propto f(r^3),$$

and without further effort the mathematician sees all the consequences which of necessity follow from the statement, the principal one of which is that, under certain circumstances dealt with above, in order to secure a fire of equal intensity over a given zone of ground, with weapons of various power, the number of bullets fired in a minute must bear some relation to the cube of their respective ranges.[1]

This, of course, is only a rough approximation to the exact truth, but it is sufficient to destroy, in a moment, nine-tenths of the tactical fallacies based on the deadliness of modern breechloading fire current in contemporary military literature.

Unfortunately, the youthful student is simply frightened away from all mathematical subjects by the form in which they are presented to him. To mention the words 'Differential or Integral Calculus' is sufficient to empty any military lecture room in a few moments. The bodies remain indeed, for the habit of military discipline restrains them, but the intellectual portion of man's nature betakes itself elsewhere, dull hopelessness of expression overspreads all countenances, and the class has to be galvanised back again to receptivity.

Yet a practical application of the Differential method (provided that the dreadful word remains unspoken) is grasped and followed with the greatest ease. There is not a gunner in the whole Artillery who cannot explain in intelligible fashion the reasoning on which the modern method of 'ranging' a battery is based.

Let us assume that your first shot is fired at an estimated

[1] See p. 350, the position of any particular bullet at any given instant of time must be somewhere within the figure bounded by the lines a, b, c. If a is equivalent to the range (r), then b and c can be expressed in terms of the range, and $a \times b \times c$ becomes kr^3—where k is a variable coefficient depending on the relations of $b \times c$ to a. The idea is identical with that employed in yacht or ship measurement.

range of 3,000 yards, and the smoke from the bursting shell obscures the target. The target, therefore, is evidently beyond the 3,000 range. So your next shot is laid for 3,600, this time the target stands out against the smoke of the shell. Its true position is, therefore, somewhere between these two limits, and it is useless wasting ammunition at distances over or under them.

You, therefore, halve the distance, and again watch the shell burst, and thus you proceed by successive approximations until at length the range is obtained, with sufficient practical accuracy.

This method was first introduced into the Prussian Artillery during the years between 1868 and 1870, and, as Prince Hohenlohe in his 'Letters on Artillery' points out, those batteries trained to employ it were worth three to four times the number of those worked only on the old rule of thumb methods, which consisted merely of unsystematised guessing. Yet (and this is an illustration of the slowness of average minds to respond to intellectual suggestion) it was not till about 1886 that the plan was definitely adopted in the British Service.

I remember one morning at Quetta, in 1888, watching this practice by a mountain battery for the first time. Of course I had heard about it over and over again. Suddenly I realised all that would follow if the idea were generally applied to most intellectual problems.

Already I had read and thought on tactical and strategical problems for nearly twenty years without reaching unassailable conclusions. Then it flashed into my mind that I had forgotten first to establish my fixed limits within which to approximate to conclusions. I rode straight to my quarters, and there and then wrote down the outlines of my new idea, which I have since consistently followed, not only in military, but in political and economic problems, with a saving of mental effort, and a conviction of certainty in my results, which I find it impossible to over-estimate.

At first in each particular subject the limits were of necessity wide, but as long as I kept within them I knew I was relatively right, and as I read more, and accumulated

further data, I narrowed the issue down until I reached foundations sufficiently firm for action.

My next step was to endeavour to formulate my conclusions by some adaptation of the 'Graphic method.' Every engineer knows the enormous saving in time resulting from its application to the calculation of strains and stresses in a roof or girder, and the ease with which certain facts, *e.g.* the work done by steam pressure in a cylinder, is appreciated, facts which it is very difficult indeed to express clearly in accurate language, but the meaning of which is apparent to the trained eye in a single glance; and I found that though its full exactness could not be arrived at in military matters, it was nevertheless possible to attain quantitative results of the utmost accuracy.

Diagrams V. and VI., fig. 2, show some of the results and the method employed in their construction; the point to notice being that though the values assigned on the vertical ordinates are for the most part arbitrary, being, in fact, my own conclusions based on my own reading, yet, however much opinions may vary, as long as any positive values are assigned to the several factors a tall, the shape of the curve must remain substantially the same. It may be more or less accentuated, but the conclusion stands out none the less in a form which the eye can take in in a moment.

Thus in Diagram VI., fig. 2—Relation of Attack and Defence—to reach the conclusions therein represented would take an average man presumably about the same time that it has taken me, viz. about thirty years, and for all practical purposes the minutiæ of detail which he would incidentally acquire in the course of his reading would be quite useless to him. The diagram gives him in a moment all he need know, and the practical advantage which might accrue from the application of his knowledge may be gained from the fact that it enabled me to predict the duration of the South African and Manchurian campaigns to within a few weeks. To what account a financier might have turned such knowledge I can safely leave to the imagination of my readers.

If, as I have endeavoured to prove in the earlier chapters,

War is the primary condition which has led to the evolution of the several races as we now find them, it is clear that our methods of teaching history must be very largely revised. Where fifty years ago we had perhaps too much of the 'drum and trumpet' school, we have now to complain of a surfeit of the 'triumphs of peace' style of writing. What we want is a recognition of the whole meaning of Clausewitz's sentence, 'War is an incident in human intercourse,' and a consequent reconstruction of history on that basis.

The mere enumeration of battles and sieges, with a few graphic touches to bring out quite subordinate features, constitutes neither teaching nor history. Neither is it of any use to cram children with the details of social life without reference to the underlying causes which enabled those details to operate. Really, what we want is an analysis of past events showing the principal conditions which evolved Wars, their consequence to either side, and the corresponding local conditions thus evolved.

A most admirable effort in this direction has been made by Mr. Kenelm Cotes in his 'Social and Imperial Life in Great Britain,' published about 1900, but the very excellence of his work brings out the inherent difficulties in the path of every civilian who undertakes a similar task. Broadly he appreciates as vividly as I do that 'first in Peace means first in War'—in other words, the doctrine of the 'Survival of the Fittest on the National Plane'—but for want of a grounding in military thought he fails sometimes to bring out the full significance of his points. The same remark applies to the whole mass of military studies which we owe to the pens of such brilliant and painstaking authors as Fortescue, Firth, Oman, Rose, and others. They have added immensely to our wealth of knowledge, but because they have never been taught to co-ordinate their facts in the order of their relative importance, they have only added to existing confusion without showing us the way out of it.

Compare with these the works of the historical section of the French General Staff—of such men as Colin, Desbrières, De Cugnac, Contanseau, and others—all working on the same subjects, and at the same time; then the contrast cannot fail

to strike even the most superficial observer. Intellectually the advantage would probably lie on the side of the British; certainly the French brought up in the Army during the years from 1870 to 1890 can never have enjoyed the opportunities for ordered intellectual training that have fallen to the lot of our more fortunate compatriots; but the result is enormously in favour of the latter, simply because in the 'school of defeat' they have learnt to extract the vital points out of the very same matter.

This is where the supreme national importance of the Military History Section, which I have so constantly insisted on above, comes to the front. If during the last half-century we had possessed such an organ enabling us to settle by discussion and the clash of opinion the true value to be assigned to the several factors on which my diagrams are based, every man who wished to take up military research would have a guide to show him on what points to concentrate his energies. With such assistance in the task of research, for which the soldier with ability enough to obtain the position of head of such a Department can never hope to find time or opportunity, there is no reason why we should not now be as conspicuously ahead of Europe in knowledge of the military essentials of our Empire as we are in fact very markedly behindhand. Yet these military essentials are the foundations of Empire, nothing less, and we cannot safely begin to modify our superstructure until we know all about them. Who would think, for instance, of adding a spire to York Minster without first ascertaining whether the foundations could carry the increased load?

No more striking example of the need for the scientific investigation of the soundness of the foundations of public opinion in this country can be adduced than that presented by the recurrent agitation in favour of disarmament proposals and the arguments by which they are supported. Conventional history would have us believe that the idea of limiting the application of force in War was initiated by Hugo Grotius [1] and accepted by the ruling Powers of Europe as a protest against the appalling horrors of the Thirty Years' War. Military

[1] *De jure belli ac pacis* . . . 1625.

History, on the contrary, shows us that though the acceptance of Von Grotius's ideas was indeed a consequence of the said campaign, this acceptance was conditioned by 'expediency' solely, and that this 'expediency' grew out of the substitution of Dynastic instead of Religious motives for the inception of Wars (see Chapter I.) and endured only as long as the Dynasties concerned obtained a voice in the matter.

When the motives for War changed from the Dynastic to the National Plane, the 'expediency' plea soon vanished, and after twenty-five years of bitter experience, Clausewitz summed up the whole situation by the categorical statement, 'In War the use of force is absolute.' And this remains the cardinal doctrine of every Great Power in Europe to the present moment; for though in theory and through the mouths of our Prime Ministers we may yearn towards humanity, in practice Copenhagen, Badajos, and Ciudad Rodrigo have not been forgotten on the Continent.

Moreover, the history of the evolution of modern Armies proves conclusively that no limitation of existing forces is conceivable, either with due regard to national economy or to the stability of the present constitutions. As I have shown above in my chapters on the German Army, the national wealth and credit depend upon the training of every man physically worth the time of the instructors, and the one bulwark against Socialism upon which the German Government relies is constituted by the excess of ex-soldiers over civilians in the voting population.

It is scarcely possible to exaggerate the danger to the Peace of Europe which may result from the publication of such unparalleled nonsense as the Prime Minister's recent utterances in the *Nation*,[1] for the German Staff Officer necessarily argues that with such an ignorant man to speak for it, any liberties may be taken with the British Government. How far the German Government was prepared to go, even with a man they did respect because they could not understand him, the secret history of the Dogger Bank incident, and one or two other occurrences which have not yet been made public, may one

[1] On Disarmament and the Hague Conference, February 1907.

day reveal; and the possible causes of further grave misunderstandings are increasing day by day.

Reverting, however, to the main subject of this chapter, it is clear that if the school time for the teaching of any one subject is increased, the curriculum must be cut down in some other direction; and, since modern languages are essential for the study of history (for much historical matter can never be rendered satisfactorily into English), classics will have to be curtailed in the future. I base my objections to them on two grounds, both new in the interminable discussion—the first is purely practical, the latter moral.

In the first I find M. le Bon entirely on my side. His argument is, in brief, that since it is only possible for a man who has lived long enough in a foreign country to identify himself completely with the atmosphere of his surroundings to translate one living language into another (a fact for which I myself can vouch), and that even then the result is far from satisfactory, since, by living so much abroad, he has of necessity lost touch with his own country, it is downright waste of time, and impossible besides, for anyone to translate reliably from a dead language into a living one.

Whilst the words remain the same, their meaning insensibly changes, till the dictionary equivalent no longer conveys an accurate interpretation of the thought behind the word. He illustrates this by the several meanings attached to the word 'democracy' in different countries.

In France and America it implies two entirely different conceptions. If, then, the same word can come to mean in two countries separated by space only, not in time, two diametrically opposite things, what guarantee can we have for its meaning two thousand years ago?

This and the other words he cites are, of course, extreme cases, but differentiate between the exact meaning of the whole vocabulary, and remember that each word is liable to vary independently of every other, and then calculate the probabilities in favour of or against any particular translation of a given phrase as representing the exact signification its author intended it to convey.

Moreover, even admitting that in practice the variation is

so immaterial as not to jeopardise seriously the sense of a particular passage, in the absence of all aids to accurate observation such as we now possess, the records at best can only be subjectively, not objectively, true. Is it worth while wasting time on such a mass of subjective testimony? An instance occurs to me in illustration. There is hardly a schoolboy who at some stage or other of his tuition has not laboured through Cæsar's invasion of Great Britain, and painfully spelt out how his forces, embarking at a given date and hour, the moon then being in a certain phase (I forget which), crossed the Channel and landed at a certain place generally identified as Deal. Now, it happened many years ago that the book fell into the hands of a retired Naval officer, then harbour master at Dover, who took the local tide tables and calculated out what the tide was doing on the particular date and hour indicated. As a result he found that the transports were carried by the east-going stream somewhere north of the Varne lightship, and then, passing into the west-going stream, were swept downwards by a four-knot current to about somewhere between Sandgate and Dymchurch, it being *a physical impossibility* that they could have struck land anywhere else. The point in itself is not of much consequence, except that it destroys all existing theories as to Cæsar's subsequent advance into Britain; but it shows, in the clearest manner, how subjective truth is apt to mislead even the most conscientious of students because they have not the local and scientific knowledge to apply the necessary corrections.

But my chief objection to classical study at public schools goes much deeper than mere waste of time, and aims at removing what I consider the gravest blot in our system of education. 'A clean mind in a healthy body' should be our ambition; but how can we hope to attain either when we place in the hands of boys, at the most critical period of their lives, a knowledge of languages which unlocks the door to about the lewdest literature in Western Europe—indeed in the world, for I question whether 'Petronius' is not more degrading than the worst in the Oriental Miscellanies, or the 'Scented Garden.'

It is true that 'Petronius' and similar books are not exactly prescribed as text-books, but Bohn's translations render them readily accessible, and it is utterly impossible to even skirt the fringe of the classics without being compelled to make the acquaintance of the whole of Greek and Roman mythology, neither of which can be read by boys of inquisitive minds, and a certain degree of sexual precocity, without considerable danger to the moral tone of the whole school.

That, however, is only part of the danger; the more serious aspect is seen when we consider, or recall, the effect on boys' minds of having this garbage placed in their hands by the men responsible to their parents for their moral welfare, and to whose sermons and exhortations they are compelled to listen three times on every Sunday in their school chapels. The boys reason that the schoolmaster himself was once a boy, and must know the meanings attached by the vast majority of youths to the several classic legends given them to read, and they therefore condemn him as an unmitigated hypocrite for preaching virtue on Sundays and thrusting suggestive impropriety before them on weekdays. This not only brings authority into contempt, but undermines the boys' hereditary instincts towards the national religion likewise.

If a boy impelled by curiosity, awakened by this suggestive material, crosses the line of chastity a few months earlier than is sanctioned by universal custom, he is ruthlessly punished by expulsion, with the consequence that his career is too often blighted for life. I recall a case of three boys in their seventeenth year, caught under decidedly compromising circumstances with a somewhat notorious female in the neighbourhood, who were all expelled, and by the same dignitary of the Church of England who, only a few weeks previously, had set his particular class (the classical sixth) a play of Aristophanes to get up, which remains in my mind even to this day as the most grossly indecent production that has ever come under my eyes, and my reading has been both extensive and peculiar.

I remember how we, the dormitory prefects, held a meeting to hear the play read (with the aid of a crib), and decided that it really was too much for our not very chaste minds or fastidious stomachs; and when the three boys aforesaid were

subsequently expelled for yielding prematurely to a perfectly natural impulse, our indignation knew no limits.

During the last few years there have been a number of thoughtful books brought out dealing with our Public School system which I have read with attentive interest, but I do not yet know which to marvel at most—their sublime ignorance of human boy-nature, or the consummate hypocrisy which deceives even the writers themselves. I know that the only ethical teaching I received from my pastors and masters in six years of public school life was the profound wisdom of observing the eleventh commandment—'Thou shalt not be found out'; and I left school with my faith in dogmatic religion utterly shattered. I still kept up the outward observances for a few years longer, but the path of doubt is exceedingly easy, and the way out of it terribly long.

But is this the sort of education to give to boys who, within a couple of years, may be called on to lead their men to almost certain death, and to help them in their hours of direst adversity?

How utterly helpless does a man without some faith feel when going round hospital wards at a time of epidemic sickness in India, and what would he not give for a little of that divine light which has made such men as Father Brindle and Mr. Edgehill household words throughout the whole Army!

'Woe unto the world because of offences, for it needs must be that offences come—but woe unto them by whom they come.' I learnt that text at school; and I never see a headline descriptive of some loathsome West-end scandal without recalling the incident of the reading of the play above alluded to, and wondering how far the premature knowledge of it taught in Public Schools has paved the way for such downfalls.

To my mind the ideal of boyhood education is to be found in the 'Britannia,' and we shall never succeed in turning out the class of Officers and Leaders of men we require until we have broken down the monopoly, in teaching, at present in the hands of the clergy, and placed these in their true position in the teaching class, viz. as chaplains. The Army turns out scores of men fitted to teach everything, except classics, that a young Officer needs to know, and immeasurably better quali-

fied to command the respect of their pupils, simply because they have all done, and too often suffered, much for their country. I know this, that the sight of those old veterans of the Crimea and Mutiny kneeling at the communion-rails in the garrison chapels at Woolwich, Chatham, and Aldershot—men who had faced death again and again, and had ability far above mine—remained to me as a sheet-anchor in the storm of doubt and want of faith through which I was struggling. And it is example, not precept, which the average boy requires.

It is not 'intellect' that boys require to make leaders in after-life, but 'character'; and character is mainly developed by example. Cut classics out of your curriculum, so that your teachers are no longer compelled to forfeit their pupils' respect by suggesting vice on six days of the week and reproving it on the seventh, and any healthy-minded English gentleman will suffice not only to set sufficient example, but to teach a boy all he needs to know in order to obey intelligently, which is all that is required from the vast majority of our junior officers.

Character, then, determines the evolution of the expert, of whom but a few are necessary; and ability allied with character finally conditions the survival of the still smaller number who are required *to employ the experts*.

Our present trouble is that the Public believe that all Officers should be experts, and are encouraged in this belief by the clamorous multitude of Officers who claim to speak as experts because they possess opinions out of harmony with their surroundings.

That men should grip opinions with sufficient tenacity to fight for them, even with their pens, is a healthy sign of the spirit stirring within us, and justifies the hope, which I for one very strongly hold, that once reliable facts are placed at the disposal of the average man, progress will be both sure and rapid. At present, in consequence of the confusion of thought in the air, there is a feeling of hopelessness abroad at the mass of material to be mastered. The Regular Officer, who, after perhaps twenty years' thinking and experience, still finds amongst his comrades no solid ground of agreement

to build upon, laments over the crass ignorance of those who do not happen to agree with him, and argues that if all the time and opportunities which fall to the lot of the 'Regulars' are insufficient to enable them to come up to his own standard of what he holds to be necessary knowledge, how hopeless it must be to expect from the Auxiliary forces even a tithe of the efficiency he considers desirable. He does not see that his standard is quite an arbitrary one, and that he has had difficulties in attaining it, due primarily to his own insufficient grounding at school, and his want of guidance thereafter.

My contention is that the course of study I have outlined above, and the formation of a Military History Section to clear up the many points at present in dispute, would remove nine-tenths of these difficulties altogether, and that, thus simplified, the amount of intellectual effort needed to master all that a Company Officer in European Warfare need actually know is very small indeed.

The South African War set up an entirely false standard of attainment, owing to the special causes, topographical, climatic, and psychologic, which it set in motion. Our men had no great and obvious cause to fight for—none at least that would stand the searching mental criticism that is apt to be thrown on such matters during the reaction after the excitement of a fight, or in the small hours of a bitterly cold morning when standing to arms in expectation of a daybreak surprise. Our young Officers were thrown on their own resources whilst opposed to the most resourceful enemy, under conditions of the latter's own choosing, and in each problem that presented itself there were generally several possible solutions—none of them encouraging. Yet both men and Officers rose to the occasion, and I fearlessly challenge anyone to produce from the records of similar campaigns, under even approximate conditions, a lower percentage of failures, taking into account the area of the theatre of operations, the numbers engaged, and the duration of the campaign.

In the case of an invasion, everything would be different. There would be an obvious cause to fight for, and in its presence all the ordinary friction, which delays and hampers the execution of orders, would disappear. Rarely, indeed,

nowadays, is this due to deliberate disobedience, but generally to an absence of conviction, throughout the whole mass, that the exertion called for is really requisite to meet the exigencies of the case. This, of course, always exists in Peace, and since during the thirty years over which my observation of the Volunteers extends it has never proved sufficient to prevent the arrival of the several units, however large, with reasonable punctuality at the required place, I am confident that the Staff need have no doubt as to at least the same degree of efficiency being attained in War by the same class of men.

Once, however, troops are concentrated for decisive action on a modern battlefield, all initiative on the part of the regimental Officers practically ceases. Men and Officers all have only one condition to satisfy—either to die where they are told to stand, or to go on till they are killed—according as to whether the higher unit to which they belong is attacking or defending; and the percentage of each that will fulfil this condition depends on the intensity of the 'thought wave' by which they are influenced.

It cannot too often be reiterated that, where opposing forces are equally well armed, victory or defeat is independent of the nature of the weapons, but rests on the skill with which the superior Commander gauges the temper of his troops and launches or supports them at the right moment. All the troops have to do is to arrive at the right time and place, so as to be available when he wants them; and for this they need but obedience and endurance.

It is true that in an emergency we should be some 5,000 Officers short of our full establishment, but that establishment is an entirely arbitrary one, laid down to meet conditions essentially different from those I am considering.

The 3rd and 10th Corps of the Prussian Army showed a higher percentage of gaps amongst their Company Officers on the morning of August 17, 1870, but that did not prevent their being reported as fit for action before noon that day, and they were both deployed near St. Privat and Habonville during the battle on the following afternoon. Kouropatkine's Army, after the battles of Liao-Yang and Mukden, also showed many vacancies in the commissioned ranks, but it

was in better trim for fighting at the date of the Peace of Portsmouth than it ever had been throughout the War.

The truth is we make far too much of the rules laid down for efficiency, and insist on the observance of rules as the end, instead of their being merely a means to that end.

In any case the difficulty is largely one which can be removed by the same expedient I have recommended for dealing with the rank and file. Every Commanding Officer has only to keep lists of Officers suitable for transfer to the Line, in case of emergency; of ex-Officers, and others fit to hold a commission, likely to be available in his district, to fill up the gaps caused by the above-mentioned transfers; and, finally, of Non-Commissioned Officers fit for promotion, as a last resort.[1] He will have to do all this within a couple of hours after the bullets begin to fly in earnest. Will it not be wiser to prepare such lists beforehand 'while it is yet day'?

[1] In extreme emergencies I should not hesitate to take every commissionaire and every policeman with war services and promote him to subaltern rank.

CHAPTER XX

BOY BRIGADES—THE MILITIA—CONCLUSION

It was my intention to complete my work with a special chapter dealing with the whole evolution of the existing system of Boy Brigades and similar organisations for the training of the youth of this country. But that work has been so thoroughly accomplished by the able and distinguished author of 'Our Birthright,'[1] that I can confidently refer my readers to his little work for all minor details.

All that is necessary to my argument is to point out that here again voluntary effort has already elaborated an organisation which has passed three million boys—or just one-third of the total number available—through its ranks, and that the movement is still almost in its infancy.

Although it derives no particular support from the State, *i.e.* no capitation grant or contribution in aid of uniforms, etc., nevertheless the same laws of growth guide its development as I have shown to be at work with the Volunteers.

It is gradually acquiring land and property as the outcome of subscriptions from those in sympathy with the aims of its promoters, beside deriving an unearned increment from the administrative ability it has enlisted in its service, which is freely and ungrudgingly given.

It appeals particularly to a very large class of retired Officers—men either of too high a rank to be available for Volunteer Commands, or too old for active service; and it is from the influence I know to be exercised by these Officers on the boys that I have mainly based the proposals put forward in the previous chapter for the education of those destined for the commissioned ranks of the Army.

[1] *Our Birthright.* By 'Optimist.' Published by Messrs. Constable, 1906.

But the essence of the whole movement is the voluntary spirit and the freedom from over-centralisation it implies. Men will freely spend their time and money on the execution of their own desires, who will not give a farthing to be disbursed at another man's orders; and though each man's views may differ fractionally as to the details best suited to attain the final purpose common to all, inventive faculty has free play, and emulation decides the survival of the fittest.

All that is needed to derive the full benefit from the two organisations, is to affiliate them by the very lightest of ties, and make all the boy members in each Regimental District feel that they already have some part and lot in the achievements of their territorial Regiment.

Most Regiments have some great anniversary which they celebrate—Minden, Waterloo, and so forth—and to allow the boys to attend and take part in the parade, wear the Rose or Shamrock, or whatever the badge of the day might be, would do more to awaken the latent instinct of patriotism than all the history lessons in the Board Schools.

The experiment might well be tried, and I think the result would surprise those who think that the flame of patriotism is extinct in these islands. I worked out an approximation of the numbers which might thus be gathered together at Manchester, and found that, in addition to the depôt of the Manchester Regiment and its Militia and Volunteer battalions, numbering some 7,000 men, it would be possible to get together at least 10,000 ex-Volunteers, Militiamen, and ex-Regulars, together with some 5,000 boys at least, and to organise them in Battalions and Companies, sufficiently to enable them to execute a passable march past.

In striking contrast to the progress of these two branches of the Service, viz. the Volunteers and the Boy Brigades (which latter, though not officially recognised, must nevertheless be considered an integral portion of our whole system of national defence), we have the almost moribund condition of the Militia, which has declined in numbers, if not in efficiency, almost in direct proportion to the fatherly care bestowed upon it by the War Office.

Originally both Line and Militia were raised under almost identical conditions, *i.e.* the Commanding Officers contracted to supply so many rank-and-file efficient and equipped in return for a payment of so much per head or unit. This system obtained all over Europe until about the middle of the seventeenth century, and it still exists in principle in our Indian Army, where in general it answers well; in some particular cases even brilliantly.

It would need a separate and bulky volume to trace out all the causes which led to its abandonment. Tactical necessities of Frederic the Great's day contributed greatly to this end, for his system was based on the uniformity of every element in the Infantry and Cavalry; but essentially it fell into disrepute because, as War became less and less the chronic condition of Europe, it was more and more to the obvious interest of the Commanding Officer to starve his men for the benefit of his own pocket. A man living always in face of the enemy realised to the full his complete dependence on the efficiency of his Command to preserve his life and ensure his promotion; but in chronic Peace his interests were best pushed by the command of ready money, and his men suffered accordingly.

The expedient of a Regimental Finance Committee which we at present employ in the Volunteers, was not then practicable, because (owing again to the tactical necessities of the case, and also partly to the growing corruption of all classes which inevitably follows any relaxation of the external stress of danger) such Boards, even where they might be trusted, could not possess individuality enough to control their several Commanders' peculiarities. This latter cause is still so much in force that even nowadays in India, where the incorruptibility of our Officers is above question, failure to achieve really excellent results is more frequent than success.

That it should be so is almost obvious. One Commanding Officer may believe that the mainspring of efficiency is to be found in a fine fancy uniform to attract recruits, another believes in some new-fangled article of equipment, the while their motives are above suspicion. But it would take quite

unusual independence of character for junior Officers to attempt to thwart the execution of such little whims.

In the long run these eccentricities balance themselves. Some variations thus imported turn out brilliant successes, though rarely in the direction expected by their originator; others are eliminated by experience, though perhaps not before the finances of the Regiment have been seriously embarrassed.

With the Volunteers the check of the Finance Committee is practically sufficient, for its members are not dependent for the whole of their career upon the opinion of their Colonel. Minute uniformity is not really essential, and therefore the principle of evolution can be allowed full freedom of growth.

For the same reasons, I contend that a somewhat similar system would regenerate the Militia. For many reasons, it would be neither possible nor desirable to give their Commanding Officers the same degree of latitude as the Volunteers enjoy. Their training, for instance, is too intimately bound up with the depôt system for their drill premises and stores to be handed over to regimental control. Though, having no personal experience of Militia finance, I cannot put forward definite proposals in this direction, I submit that the resources of invention are not yet exhausted, and it ought not to exceed the wit of man to propound practical suggestions.

The Militia, however, must be resuscitated at all costs, as it supplies a want in our organisation which nothing else can fill, viz. the power of immediate expansion to meet an emergency such as occurred at the outbreak of the Boer War, which may repeat itself in the case of hostilities on the Indian frontier or elsewhere, where we have a long land frontier to guard.

Take, for instance, the recent crisis on the Egyptian-Turkish frontier, which might easily have entailed the despatch of 120,000 men.

To have mobilised the Volunteers under such circumstances would have completely disorganised our industrial system, and would have gravely aggravated the evils which a renewal of hostilities before we were well clear of the debts incurred in South Africa must certainly have entailed upon

our national credit. On the other hand, the embodiment of the Militia carries with it no particular inconvenience, the men are not enlisted from the artisan class, and their withdrawal cannot influence production to the same degree. The loss of a first-rate foreman or accountant in a small engineering works may almost paralyse the labour of a whole workshop; but many thousand agriculturists and casual labourers can be transferred from one form of employment to another without even noticeable inconvenience. It is not so much the number of men withdrawn from productive industry that signifies, but the importance of the places which the pick of the men actually fill.

Apart from this, the mere fact of the existence of these two forces side by side with one another for so many years proves also the existence of two distinct classes of the population which do not tend to amalgamate, viz. the class who can afford to give up their time to military training in the bulk, and those who can only spare it in instalments, viz. by hours in the week, and one week in the year. To fuse the two would rob us probably of the most valuable members of each force; certainly it would do so with the Volunteers. In any case it must reduce the total numbers undergoing training in any one year by about 50,000; but numbers, not quality, constitute the essence of our whole problem.

Suppose, as an instance, what would probably prove for us the gravest trial of all, a great European War, developing out of an Anglo-Russian collision in Afghanistan. Under our existing system, the Regular Army with its Reserves having been sent to the front, the Militia is embodied and grouped with the Line depôts into brigades and divisions.

As the money market tightened and trade fell off, hundreds would be thrown out of work, and recruiting would be brisk, as it always is under these circumstances.

Then the only necessary step would be a special appeal to the ex-reserve soldiers, many of whom, being out of work, would need little special encouragement to rejoin 'for the War,' either at the depôts of the Line battalions, or with the Militia. Twenty-five per cent. of old soldiers to stiffen the latter would turn them into fairly reliable fighting bodies,

and behind these would stand the Volunteers, ready to fall in as at present, to meet an emergency, and gaining strength day by day under the extra stimulus to efficiency that War always imparts.

If, therefore, the suggestions put forward in previous chapters (III. and XIV.), viz. the organisation of Reserve units and the preparation of 'zones of concentration' in the north, east, and south, were put in hand, it is to the last degree improbable that any third Power would venture to interfere; for as in the case of South Africa, so with Russia, our Fleet would remain practically intact; and though it is always conceivable that it may be paralysed for a couple of days, *i.e.* long enough for a surprise landing, yet with land forces totalling some half million of men obviously ready for immediate concentration, the game would evidently not be worth the candle.

Now consider the position if Mr. Haldane's scheme shortly becomes law, and the Militia lose their identity, becoming merged in the Line, the Volunteers being embodied for six months' service.

The dislocation of industry inevitable in every War will be aggravated, and the Volunteers, taken from their several avocations just when their services are most needed, will come unwillingly—almost as conscripts.

In the event of discontent, who is to restrain these men with arms in their hands? The depôt battalions of boys mostly under twenty years of age? I very much doubt whether they would suffice even if they could be compelled to obey orders.

But assuming that the innate loyalty of the men carries us over this difficulty, how much heart are the Volunteers likely to put into their work, and how many will prolong their engagement beyond the six months?

Nearly twenty years ago, the late Colonel Henderson and I, foregathering at some manœuvres abroad, determined to institute a crusade in favour of the study of the American Civil War. His 'Stonewall Jackson,' and countless other papers, and letters by both of us, were the outcome of this meeting, as were also the orders subsequently issued by the

Department of Military Education, which for several years made a knowledge of the American War compulsory for all Officers. Hence there can hardly be an Officer of five years' standing who has not made himself acquainted with its principal lessons. Now, of these the chief one undoubtedly was the danger of relying on men enlisted for any less term than 'for the War,' and the teaching of the campaigns of the French Revolutionary Armies is equally clear on this point. It was only when the term of service was fixed at a number of years, which practically under Napoleon was about equivalent to a life sentence, that the career of French victory set in.

I cannot therefore conceive how any responsible body of Officers can have put forward such an astounding proposition as the new scheme involves. For the consequences of it are as obvious as they are inevitable. Six months under arms without a visible foe, to compel men to subordinate all their private affairs to National requirements, are more than sufficient to dishearten even the most whole-souled patriots. The whole of such a force will claim their discharge on the same day, and we shall be left with our military administration thoroughly discredited; with the need of furnishing fresh drafts for the front pressing cruelly upon us, and practically nothing to oppose to a possible invader, or to deter him from the attempt to land which, whether successful or not, implies War upon the grandest scale, thus destroying all remaining credit, and throwing literally millions of workers upon the labour market, with no organisation, as at present, to take up the shock.

Even without the interference of a third Power, I very much doubt whether, under the new scheme, we could hold India long enough for our command of the sea and the financial power we control to assert their full value. Indeed, it is on the slow and gradual pressure which these factors can exercise that our tenure of India depends. No system we can devise will supply men enough for an offensive campaign into the heart of Russia, and nothing but financial exhaustion and consequent revolution will suffice to bring the latter to accept our terms. Our best defence lies in reversing the

Napoleonic and Japanese proceeding, *i.e.* in compelling Russia to lengthen her lines of communication up to the lines of Quetta, and even to attack Rawal Pindi, thus bringing upon her both the cupidity and enmity of the Afghans, before we deliver our final counter-stroke, the direction of which it is not desirable to discuss too closely.

The whole of Beluchistan as far as the borders of Seistan, and all the Afghan slopes of the northern barrier of mountains from the Gomal to the Khyber, are admirably adapted to fighting a retaining campaign, and I entertained no doubt ten years ago that we could hold any conceivable force that could be brought against us for long enough to enable our external pressure to take effect; although I attributed greater fighting power to the Russians than recent events have shown them to possess.

Meanwhile, however, the situation has altered on our own side and not to our advantage, and again this is due to the hopeless superficiality of our military advisers.

When Lord Roberts left India our Army was, relatively to all possible adversaries, in admirable condition.

The percentage of War-trained Officers and men was abnormally high, and they had evolved an interpretation of the existing drill books which, if not above criticism, was at any rate better than anything likely to be employed against us. Our Cavalry under Sir George Luck had quadrupled in value, and our Transport and Engineers were both at a very high standard of efficiency. Moreover, our prestige with all the native races was at its highest, and the Army as a whole more contented than it had ever been.

Then came the unfortunate occurrences in South Africa, and notwithstanding that under no possible circumstances could the Indian Army ever be called on to fight the Boers, or anyone remotely resembling them, our whole tactical system was upset, and the veteran native soldiers who knew what fire-power it needed to stop a Ghazi rush found themselves compelled to manœuvre in widely extended lines deprived of all the moral support and cohesion to which they were accustomed. Against this both their common-sense and hereditary fighting instinct alike rebelled, and it is indeed

fortunate for us that the Russians tried their tactics on the Japanese first and not on us; for seeing that even the splendid Japanese Infantry (far superior to any of our native battalions except the Ghurkas and Sikhs, and fighting normally with about ten times as many rifles to the mile as our formations allowed us), repeatedly found it impossible to check the bayonet attacks of the Russians, it may be imagined what fate would have overtaken our Native Infantry if called upon to stand up to the same ordeal.

Probably we shall swing back to our previous practice within a few years. Manchurian experiences will in fact compel us to this step; but, meanwhile, the harm has been done, for nothing saps the confidence of men in their leaders more than constant alterations in tactical prescriptions.

Further, in deference to hasty generalisations based on insufficient study of military experience, we have embarked on a system of concentration of large masses of troops in so-called 'strategical positions' with the view of securing greater rapidity in mobilisation, and are thereby undermining both the efficiency and the contentment of the whole Army, by subjecting it to expenses and inconveniences which are unnecessary and unreasonable in times of Peace. The history of this idea is curious. It owed its origin to Napoleon's example of the camp of Boulogne, formed to meet a very special emergency at a very critical time in its creator's career. We know now from countless biographies that very little work indeed was done in the camp, and that Napoleon never afterwards repeated the experiment, preferring always to keep his troops in wide cantonments until the last moment before the opening of a campaign. But the idea 'caught on,' and it became a kind of legend both in the French and British Armies, that concentration in large camps all the year round was the prime condition of military success. Chalons, Aldershot, and Salisbury were the consequences of this legend, and though under the peculiar conditions of our own service something may be said in favour of the two latter, the campaign of 1870 sufficiently demonstrated the evils of the former.

Thenceforward all the Continental Powers set their faces against the practice—only Russia being constrained to adhere

to, and indeed extend, its application by a clever trick on the part of the Prussian Staff.

Throughout the years from 1886 to 1893 War between Germany and Russia seemed within measurable distance for reasons too long to refer to here. The Prussians saw clearly the essential difference of the problem as viewed from either side of their frontier line. Germany was not, and never will be, economically so situated as to be able to stand a prolonged campaign, particularly in a case where the sea-power was all on the other side. A rapid and decisive victory or series of victories was necessary to her to ensure the support of her allies, and to attract the funds of the financiers. It became, therefore, necessary to attract and hold a sufficiently large fraction of the Russian Army within the striking radius of her own troops, so as to prevent any repetition of the strategy of 1812, and as German military opinion was very much in the ascendant at that time in Russia, it was not difficult to create a predisposition in favour of these concentrations in the enemy's camp. This was strengthened by the redistribution of her own troops in temporary hut-barracks upon or near the frontiers, and increased activity in the construction of strategic railways. To meet this threat the Russians gradually drew together the major portion of their Army into Poland and along the Galician border, keeping them massed, as indeed the nature of existing communications compelled them to be, in relatively large bodies.

This concentration being effected, the Prussians withdrew and dispersed their masses, redistributing them over a larger area amongst the new barracks which had been built while the troops were in their temporary encampments. They thus left the Russians to 'stew in their own juice,' which they continued to do with the results with which the events of the last few years have made us sufficiently familiar; for these great camps became veritable pest-houses of Socialistic and revolutionary propaganda. The men being far removed from family influences became restless and dissatisfied, they were overdriven by their superior Officers, and in this condition they were tenfold more open to Socialistic contagion than they would have been if left in contentment within sight and

sound of their own native surroundings. Prussian Staff Officers now openly boast of the success of the traps they laid, and I am given to understand that they have actually warned English friends of the dangers we are about to incur from a similiar policy in India. In this they are indeed right, for every difficulty with which the Russians have had to contend is magnified many fold in our case; for when all is said, our native troops are 'mercenaries' neither more nor less—loyal to their Officers only as long as the 'izat' of these remains untarnished, and the demands made upon their own human nature factors are in reasonable proportion to the obvious necessities of the case. In War, as I have often pointed out, instinct asserts itself; the needs of the situation are obvious, and experience has amply proved that these men will follow their Officers with a devotion unsurpassed by any race in the world. But in time of Peace reason reasserts itself; men begin to ask why they should be mulcted in pocket and convenience for no apparent reason, and discipline suffers when they see their own Officers always at the beck and call of the Staff and other officials. In prolonged absence from their homes, all kinds of property disputes arise to which they cannot attend, their women and children suffer, and, being only human, the troops end by rebelling. They become sullen and lose all interest in their work, and when that stage is reached the more they are drilled literally the worse they become.

Moreover, admitting, for the sake of argument, that immediate readiness for action is a necessity of the situation, experience shows that these large agglomerations are not the most efficient or economical way of obtaining it. Railway traffic becomes congested, large terminal charges for stations and sidings have to be incurred, and there is no corresponding gain to the country traversed by the line to set off against this increased expenditure.

Unfortunately, in India we still work under the dominion of the dividend-earning fetish, and our finance department has not yet perceived that the indirect advantages accruing through the saving of other means of transport, and the opening up of fresh fields of agricultural development, may outweigh many times the small direct loss resulting from

the construction of a strategic railway. Had the German method of calculation (see Chapter VI., p. 116) been understood, it is probable that the point would have been grasped, that equal celerity in mobilisation—to say nothing of greater tactical and disciplinary efficiency—might readily have been attained by the multiplication of railways and communications leading from the men's homes to the front; and these communications, moreover, would have formed the best conceivable guarantee against famine that it is possible to apply in the present day.

Reverting now to the main thread of my argument, it seems to me that the chances of our incurring several more or less serious defeats on the frontier are actually greater than they were in the past; and we have to reckon with the effect of the news of a succession of unfortunate incidents, supplied to the public through the Press, at a time of crisis such as I have above endeavoured to sketch.

The point to note is that it is not so much the nature of the news itself that signifies, but the interpretation of this news that the public desires to find in the newspapers; for the Press is a business, not a philanthropic institution, and will only print what its readers wish to receive. Of this I had abundant evidence during the Colenso week. In vain I appealed to editors—hitherto always willing to accept my views—to be allowed to paint matters in their true perspective, and to point out that our defeats were incidents of relatively small importance in operations of such magnitude. In vain I begged to be allowed to stand up for our Officers who were being so cruelly slandered. The reply I received—when I got one at all—was always the same: 'We have no doubt that your views are sound, but to publish them would check the sale of the paper'; and that they knew their readers only too well I subsequently discovered by the perfectly astounding violence of the letters I received from all quarters, in reply to the few statements of mine which found their way into print.

Now imagine news of incidents of far greater gravity than any in South Africa streaming in on a Nation in the crisis I have endeavoured to depict, and try to calculate how long

any Government we are likely to see in power could resist the pressure which would be put upon it to induce it to surrender.

Where the majority of the people have not felt in person the pinch of War, bad news only stimulates the country to outbursts of patriotism, such as we witnessed after Colenso; everyone feels that he must contribute his mite, and the Press finds that it pays to adopt a lofty and patriotic attitude. But when a very large fraction have begun to feel in person the consequences of the contract entered into by them in a moment of somewhat light-hearted enthusiasm, the idea of voluntary sacrifice no longer appeals to them, and the crowd always clamours for somebody to be made to face the danger; and there is always the risk of this outcry for compulsion passing into action, because about half the electorate are already over the age limit which would exempt them from service. Hence a very small change in the balance of opinion may suffice to bring a compulsory system into legal existence.

Every soldier and statesman has long since recognised that it would not be reasonable or judicious to send out conscripts for the defence of the Indian frontier. But no one, to the best of my knowledge, has seen the full extent of the danger that such a proceeding would evoke, should it unfortunately become inevitable. Practically it would entail the break up of our whole Indian Army—for can anyone conceive the extent of the effect the presence of these conscript soldiers would create on the minds of our best native fighting races? Can anyone even dimly imagine the contempt that a Sikh or a Rajput would feel for a 'Ghorä log' conscript; and how long would the Government, compelled to rely on these unwilling slaves to defend it, retain the confidence of these splendid fighting races? The Sikh may, in fact, be a 'mercenary,' as I have above admitted; but he is also a Volunteer, who loves War for its own sake, and to such a man the conception of anything so baseborn as one who has to be *compelled* to fight is almost inconceivable. In this case we are, therefore, between the devil and the deep sea. If recruits will not come, then we must send con-

scripts, and in either case we stand to lose India for good and all.

The War Office justifies the production of its scheme by the absolute necessity of having concrete facts to deal with; but an Act of Parliament does not in itself possess any creative power, and, as countless shoals of them testify, can accomplish nothing unless the spirit of the people is behind it. If that spirit or that tendency exists, the men will be there with or without an Act to compel them to appear, for this is only an application of the law of averages, which is sufficiently accurate to justify the existence and progress of all our numberless insurance offices. But an Act of Parliament by altering the spirit of the people may destroy, and in fact very often has destroyed, the very spirit which it was intended to evoke. Thus, in the present instance, the suggestion of a fine for breach of contract by leaving the Volunteers before a certain term of service has been fulfilled, has already created a storm of opposition, though, as a fact, probably ninety-nine per cent. of the existing establishment have already voluntarily bound themselves by accepting the same liability to a penalty on breach of agreement.

Moreover, and this is the most extraordinary point in the whole business, the proposed legislation will not only give us fewer men than we already possess, but it destroys the strongest part of the guarantee for their presence when wanted which the existing arrangements gave us.

Because we could not call out the whole force except in case of actual invasion—an emergency everyone felt was not likely to arise during his particular term of service—there was no risk of the men becoming nervous and terminating their engagements by a fortnight's notice. But the power to give a fortnight's notice lapsed *ipso facto* with the order to mobilise, which brought the men under military law, and legally rendered any man 'failing to appear at the place of parade' liable to be tried, and, on conviction, to be *shot* for 'desertion in face of the enemy.'

Further, because Commanding Officers had long since realised the difficulties which must inevitably arise from the impossibility of mobilisation in anticipation of invasion, they

have independently worked out for themselves schemes for their own sudden mobilisation, which, in the majority of cases, are much more rapid than those in force for the Regular Army. They are also less complete, it is true, for the Regulars may have to embark at short notice for a two years' campaign in any quarter of the Globe, but they are sufficient for the contemplated emergency, and more seems hardly economically justifiable.[1]

I have already dealt in Chapters III. and XV. with the probable course of events in the case of invasion, and more particularly with the great 'Thought Wave' of public feeling such an emergency will create. There remains, however, one aspect of the matter which I had hardly realised myself when I first prepared the above scheme, viz. the effects of a sudden gold panic and consequent run upon the Banks.

It is well known to every banker that our most formidable rival alone holds bills on the Bank of England, payable in gold, to the average amount of about one-fifth of our legal reserve, and that their sudden presentation would create an exceedingly severe monetary crisis.

Imagine such a demand followed by a surprise invasion within forty-eight hours.

Under existing conditions I incline strongly to the belief that the greater danger would cancel the less. This may seem paradoxical, but I base my opinion on the same philosophy of the 'Psychologie des Foules,' which underlies the whole of my book.

Money-making is essentially an act of the 'reason.' Fighting is the deepest instinct which the race possesses.

[1] See Chapter XIV. I need only repeat here that in the case of my own battalion, and in that of every other with which I am acquainted, we have absolutely every requisite for an emergency, except food, provided for by contracts in our district, which, after the most careful inquiry, I am convinced could be complied with by the contractors without any difficulty at all; and, further, under the Army Act we have ample powers to requisition anything we want if our contractors fail us. The food question is the weak point, but that difficulty can be easily got over once the solution I have suggested in Chapter XVIII. is adopted. All that is necessary is for each battalion to keep on hand a stock of about 7,000 of the proposed rations—requiring 7 cubic feet storage—and consuming in camp and in the canteen about one-third of this quantity every year.

Our Paleolithic ancestors fought with arms in their hands, such as they were in those days, probably a million years ago, long before the great Ice Cap removed all but the merest traces of their former existence; money-making, however, had made so little progress in these Islands even six hundred years ago, that our Norman ancestors knew no better way of acquiring wealth than by amateur dentistry, practised, without anæsthetics, on the unfortunate Jews, by which means they extracted gold and jewels as well as teeth. By means of War the Race has developed through the ages the *spirit of duty and self-sacrifice*; the practice of commerce has taught us only *self-interest*; and almost daily experience confirms as a fact my deduction that in great emergencies the older fighting instinct triumphs. Not only in face of the enemy, but in shipwrecks, fires, and dangers of all kinds, the instinct of self-sacrifice comes to the front, even in men known to be controlled normally by the keenest sense of 'business interests.' It is an entire misconception to suppose that a man known to be generous of his life on the battlefield will be equally generous with his money when away from it. And the explanation lies in the 'resultant thought-wave' of a crowd. Even if in any given crowd each individual would in his private capacity seek his own interest in preference to that of his neighbour, each as one of a crowd knows quite well that such an impulse is not *for the good of the whole race*, and reprobates the act or intention of the individual accordingly. Moreover, it only needs the stimulus of evident danger to intensify this latent consciousness of what *is best for the race* to generate a crowd-impulse sufficient to sweep all other considerations before it.

Now, this is just what would and must happen if the alarm were sufficiently sudden and formidable. Public feeling would allow no man to think of his private interests; and, instead of rushing to the Bank for gold, men would rush the armouries for weapons. Now, this would give the Banks the very relief they would most require; for such a run could only originate through panic, as gold is not really necessary for the internal trade of a nation as long as that nation has confidence in its own future. After the repulse of the invaders that confidence

would assert itself by the law of reaction, and the transition to Bank-notes in lieu of gold would be accomplished with a minimum of friction.

As for the conditions of our external trade, that depends essentially on our command of the sea—as long as we possess, as at present, the practical monopoly of 24-knot cruisers (the Drake class) access of gold to the British market, wherever it may have been compelled to move to, will be practically as certain in time of War as in Peace, and it is therefore unlikely that what I may call the fundamental credit of the Nation will ever be seriously shaken, and we shall always be able to buy provisions abroad. All that will happen—but it is quite enough to engender the most terrible individual suffering—will be the dislocation of *internal business*, and the consequent *shrinkage of credit* as between man and man. The same amount of gold will still remain in the country, but because very many industries will be temporarily paralysed by high freights, due to our Marine insurance customs, millions will be unable to pay their debts, and confidence being shaken, the same amount of gold will probably not carry one tithe of the present superstructure of credit which now it easily supports. That under such circumstances the Government will have to feed probably half of the population may be considered as certain, but this very fact, if its full bearing is grasped by whoever in this crisis holds the reins of power, practically guarantees our survival, for it will confer upon a really *great character*, *i.e.* one who has no fear of responsibility, who realises that 'human suffering is not cumulative,' and fully appreciates that surrender would involve far greater and more protracted suffering than the continuance of hostilities, the power of controlling the amount of food allowed to the population, in such manner as to ensure the generation of a head of steam sufficient to overcome all hostile opposition.

Napoleon in his earlier years fully understood all this, and his campaigns of Ulm and Jena are masterly instances of the application of this great power, for ultimately hunger is the greatest stimulus to human action that can be conceived. Keep men hungry, just hungry enough, and they will swarm

to the Colours to end their misery ; keep them well supplied, and they will prefer to attend to their own affairs, and will clamour for others to do the fighting for them. But in no case must the hunger be allowed to become excessive, nor must the people be allowed to perceive that they are being played with.

Proposals I have formerly put forward enable us to avoid both these difficulties, and as they are essential to my argument I must briefly recapitulate them. In 1887, whilst on a march through the famine-stricken desert of Bikaneer (no rain had fallen for four years), my mind reverted, as it had often done before when contemplating Indian famines, to the awful consequences that a great War must necessarily entail on England, but this time I found a solution.

I placed it on paper and sent it to the 'Civil and Military Gazette' at Lahore, and the 'St. James's' in England, and since then I have circulated it to hundreds of competent men who have warmly approved the idea, but contended that it would entail tampering with the sacred principle of Free Trade, then a greater bogey even than it is now.

However, it inspired an old friend, Major Stewart Murray, of the Gordon Highlanders, with an idea, and by dint of extraordinary industry and perseverance he succeeded at last in getting a Royal Commission to consider the whole subject. I offered to give my evidence, which, however, was declined with thanks, but nevertheless the principal feature of my original proposal was adopted, viz. that the Government, in the event of hostilities, should pay compensation for all War losses. This, if given effect to, will at any rate eliminate the gambling rates which insurance offices would otherwise charge.

But my idea went further. I proposed that by the imposition of a small *ad valorem* duty on both imports and exports alike, a fund should be raised to be placed at the disposal of an Imperial Board charged to administer it in such manner as would best ensure the maintenance of our power at sea.

The Board or Council to consist of a certain number of Admiralty experts and *ex-officio* members, together with (*and*

this is the essential feature) a number of representatives elected by the Chambers of Commerce of the principal ports throughout the whole Empire. This would have given us true Imperial Federation on the only point, viz. defence, on which it is necessary for us all to agree, and would have removed all the old troubles which have arisen from the 'taxation without representation' difficulty.

For an almost infinitesimal charge, which the shipowners, of course, would have passed on to the consumer, over a sufficient number of years, we should have acquired a fund of such magnitude that we could have defied all Continental battleship building competition, and the Peace of Europe would have been insured, at least as far as we are concerned, for all ages; for every year Europe is becoming more and more dependent on its over-sea trade.

But 'half a loaf is better than no bread,' and though the proposal of the Commission, if it be adopted, will not suffice to prevent widespread distress, it will at least prevent the complete paralysis of all trade which without it must have ensued. Privateers, disguised as members of a Volunteer fleet, will continue to snap up a large number of all except our fastest vessels, precisely as they did in the old Wars; and the dangers from dirigible flying machines in the not distant future have also to be reckoned with. Hence our food supply will tend to concentrate in our largest vessels, and here, as already pointed out, the advantage of the reduction of bulk due to the process of food preservation I have referred to in the last chapter comes in, and the regulation of this should, I contend, be absolutely in the hands of the Government; for if a private group of capitalists get hold of it, since they will control what for many years must remain a monopoly, they will be able to bleed the Nation as they choose.

With these two factors under their control the Government can adjust supply to the national, not to the individual, needs at their discretion. If the people do not come forward to volunteer for the War, a slight rise in the cost of foods and raw materials applies pressure which History shows human nature cannot resist. And within limits they can advance or

retard the energy of operations as circumstances on the Continent may render expedient. It is the recognition of this power of control—which will almost, but not quite, regulate itself automatically—which has made me so staunch an upholder of our existing system, imperfect as I, as a trained soldier, well know it to be.

Let us assume that we had a similar law of compulsion to that in force in France—the most stringent in Europe—that would not supply us with first Line troops sufficient to contend with even Germany alone at the outset of a War on her own soil. Yet, practically, we should be compelled to make the attempt, and a series of defeats of our, hypothetically, thoroughly trained Army (I have already given sufficient reasons to show the improbability of the German standard being attained) would not only shatter our credit, but transfer the bulk of it to our enemy; and would consolidate the union of conflicting class and internal divisions which it should be our principal purpose to undo.

It is the custom to speak of the great financial controllers as endowed with almost supernatural prevision in cases of international magnitude; but watching their operations that is certainly not my conviction. Recent events in the Russo-Japanese War are a sufficient vindication of my standpoint, and personally I doubt very much if there is a single great banker in existence who possesses military training enough to appreciate with reasonable accuracy the changes or the chances of War which recent alterations in strategic doctrine, introduced in France during the last ten years, have imported into her fighting power relatively to that of her principal antagonist. The works of M. Bloch are convincing evidence of his incapacity at any rate to appreciate things as they really are.

I imagine that in the future, as in the past, Financiers will be swayed by the 'sensuous impression' of the moment, and will back the winner without regard to the ultimate consequences of their action, which are not likely to be to the advantage of the Cosmopolitan capitalist should we go under.

But, under existing conditions, except as the ally of

France, it is inconceivable that we can think of going to the Continent, at any rate beyond the defences of Belgium, which, with their good will, we might perhaps be able to hold, until we have 'grown an Army' (as the Americans did in 1862–64), capable of dealing with all that will be left of law and order in Europe after a couple of years under the screws of Sea Power and such financial pressure as we shall be able to apply.

Our whole future turns in fact upon our correct appreciation of our own latent fighting power, considering the Empire as a whole; and it is the hope of, in some measure, assisting the Nation to realise its possibilities, that has nerved me to the compilation of this book. It has been repugnant to me to the last degree to place myself in outspoken antagonism to many of my oldest and best friends, and still more so to obtrude my own ethical convictions, such as they are, on other people; but I have felt that the sacrifice had to be made by someone, and since no one else has either quite shared my training or enjoyed the same opportunities, I have accepted the responsibility, which I thus felt to be earnest, upon my shoulders.

Confidence in our own resources is the ultimate keystone of our whole commercial credit, which credit is in fact our very life. Without it we cannot continue to exist. But ceaseless jeremiads in the Press and in Parliament are not the means by which to foster its growth.

It is true that under ordinary conditions, though people read these things, no one allows them to influence his day-to-day conduct for a moment.

House property in Portsmouth, for instance, is not depreciated because a particular group of dwellings happens to be directly behind certain batteries, and the fact that every shell passing over its guns must of necessity find a final billet in their best bed- or drawing-rooms does not affect their rents or selling price. I have made careful inquiry to satisfy myself on this point; yet no one can suggest that Portsmouth is not kept sufficiently alive to the possibilities of modern Warfare. But when the crisis does come, then the seed sown will suddenly bear fruit, and people will

begin to recollect all they have previously read, and will already be prepared to accept the hypnotic suggestion sent out by the Press when the trouble begins. Again I can quote an instance. At the crisis of the Fashoda incident, someone in Portsmouth incautiously dropped a remark as to what might happen (if War really ensued) to the inhabitants of Shanklin and Sandown, in the Isle of Wight. Of course the facts had been apparent ever since the batteries for the defence of the Bay were erected, but no sooner was this 'suggestion' taken up by the Press than there was an exodus of ultra-nervous residents from those favoured spots. A more contemptible exhibition of panic cowardice it would be impossible to imagine.

If this result could be achieved by an isolated paragraph given on hearsay evidence by obscure local newspapers, what are likely to be the consequences of similar and better-founded anticipations thrown out by the whole responsible Press of the United Kingdom? The essence of the matter is that, as affairs stand at present, the Press cannot avoid giving birth to alarmist views, as their circulation depends on their headlines and contents bills; and, by a gradual process of elimination, every editor and manager not sufficiently susceptible to bow to the ruling sentiment of the moment has been ousted from his situation.

Experience, however, teaches one infallible method of dealing with panics of all descriptions, viz. the presentation to the imagination of an even greater danger, if the terror of the moment is yielded to. Again, this is the *rationale* of the drill-ground methods, and the fear of the stick, or officer's sword, was of old employed to keep the men in the ranks when, under the terrible tempest of death, the Lines tended to falter and break. In the old Prussian Army the so-called 'serre files' (non-commissioned officers in rear of the fighting lines) had absolute orders to drive their halberts through the ribs of any man who attempted to quit the ranks. It was the knowledge of the certain death behind them that kept men going forward under a stress of terror which no modern European troops have since endured. (Torgau, Hochkirche, etc.)

Our salvation now lies in an application of a similar method. We must teach the Press to bring home to the people, by ceaseless reiteration, the consequences to the nation of 'Surrender.' It must be brought home to them relentlessly that, however terrible the sufferings which invasion may and must bring in its train, the evil consequences of surrender will be many times greater. Assume, for the moment, that the New Army Scheme becomes law, and our enemy invade us before we have time to set in motion the cumbrous War Office proposals now before the Nation. London is occupied; the great manufacturing towns are held to ransom by the invader; the Nation, through its Press, clamours for Peace at any price; the authority of our Commanders having been undermined by the same methods which proved so successful against them in South Africa, the Government weakly yields, consents to pay an indemnity of about 1,000 millions for 'moral and intellectual damages,' and agrees to limit its Naval programme indefinitely if only the invader will cease burning and destroying and will retire to his own country. Calculated on the basis of actual wealth this indemnity would be but little more severe than that imposed on France in 1870, which, however, did not prove (as had been anticipated) quite sufficient to hamper her regeneration—a point the Germans have never forgotten.

Add to this the direct costs incurred for defence by the Government, which will have to be discharged to save the credit of the Nation, and the result will be a national debt of some 2,000 millions, the interest of which will have to be raised from a people amongst whom all internal credit has been hopelessly destroyed.

If even now, we, the lighest-taxed Nation in Europe, find it impossible to struggle against Continental competition, and are compelled to curtail our expenditure even on battleships to give our struggling traders a chance (at least we are told so by a majority of politicians in the Commons), what prospect would remain to us under a load of taxation for interest on debt not less than 150 millions sterling, with all our current expenses superadded?

Such taxation would stamp out the margin of profit on practically every legitimate trading business in the country, and capital (particularly cosmopolitan capital) would take wings.

Then we come to the bedrock Labour Problem, which always ultimately governs the situation. Where would the vast masses of the population, displaced from employment, go to? Who would take them, and who would pay the cost of emigrating them? Remember it is not merely a question of the men, but of the families dependent on them—a total of probably not less than ten millions—which at 5*l.* a head (surely a minimum charge) it would strain our resources to the very uttermost to grapple with successfully. Would the Colonies welcome them? In view of recent Labour Legislation in Australia and New Zealand, I very much doubt it.

The inevitable consequences would be the migration, first of capital, next of all skilled workmen [1] and organisers, whose ability will always find a market anywhere in the world; then the country, drained of its best, would be left to demagogues and the unemployed, until starvation and disease, its invariable concomitant, reduced the population to the barest number which the soil, unaided by capital, could continue to support.

Judging by the acreages available for cultivation, that number would not materially exceed ten millions, so that twenty millions remain to be swept off by famine and disease before our equilibrium would be attained. The first to go would be the whole of the middle classes—all those, in fact, who are unable to earn a living by their hands, and who are dependent on fixed incomes derived from trust funds and insurances of all sorts.

The lot of these people will be truly pitiable. It always has been in every beaten nation; but here their sufferings will be aggravated by the bitterness which will be engendered in every family when the ruin comes, and the knowledge that all the charitable foundations, in which they have been more or less interested, are involved in the same common failure,

[1] *It is already alleged that skilled workmen are leaving for Germany in thousands in consequence of the Arsenal discharges.*

and there is literally no one to hold out to them a helping hand, when they in their turn would appeal for assistance.

This is the picture which should be worked out and filled in by those with marked literary abilities, to be held constantly before the Nation's eyes, until the knowledge of it is ingrained in every English, in every British mind and heart.

'The Cost of Surrender'—studies showing in detail the awful agony of a whole population, reduced in a few months from the highest standard of comfort yet known to the civilised world to one of downright starvation.

We know how the Southern States of America suffered during their years of trial, and how nobly their women met the strain which we to-day can scarcely realise, but the land there was young, and was certain to regenerate itself once the fighting was at an end. With us, *and this is the peculiar element of our problem,* the land is played out, and regeneration after such a downfall is inconceivable.

Keep this prediction before the people's eyes, till by reiteration it has become part of the National creed, and then we need not fear that Voluntary Service will ever fail us.

APPENDIX

NARRATIVE AND OUTLINE OF WAR GAME FOR THE NORTHERN COMMAND

(Drawn up March 1906)

General Situation for Information of Spectators.

In the second week of August—the 12th falling on a Friday—diplomatic relations between Germany and Great Britain suddenly become strained, the attitude of France is uncertain. The British Government considers that by a few graceful concessions the situation can be adjusted, and, for electoral reasons, hesitates to adopt precautionary measures. The Fleet, having returned from Manœuvres, has dispersed to its home ports; leave is granted, as usual, to half the crews at a time.

On the afternoon of the 11th, the General Officer Commanding in Chief, York, receives a hint that it will be well to put off his shooting engagements for the following day, and late in the evening he learns from the tape in his club that a terrible accident has occurred at Portsmouth—a big oil-tank steamer has grounded on the Spit at the entrance to the harbour, and taken fire. The burning oil, floating on the surface of the water, is flowing up on the tide, and the whole of the Dockyard Jetty is in flames.

The evening papers also refer to a sudden call on the Bank for gold, from Germany, and comment on the reason.

He is therefore not quite unprepared, when he is awoke, about 6 A.M., by his Staff officer bearing a telegram from the War Office, dated 5.15 A.M. 12th:—

'Last night attempts were made simultaneously to obstruct the exits from Portsmouth Harbour and the Medway, both successful. Early this morning transports appeared, and French troops are landing all along the southern coast.

'Orders for mobilisation herewith.

'You are appointed to the command of all troops north of the Don and Mersey, including Scottish Command, and are hereby given an absolutely free hand to deal with the situation.

'Rumours of troop concentrations about Emden, Bremen, and Hamburg, reached us during the night *viâ* Holland.

'(Signed) ——'

Simultaneously other telegrams were received announcing attacks on the mouth of the Tyne and at Harwich, having the same object in view, viz. the blocking of the fairway. Railway communication between Berwick and Newcastle also reported as interrupted.

From these data it was sufficiently evident to the General Officer Commanding that for the next forty-eight hours the allied Fleets of France and Germany were sufficient to cover the passage of troops across the North Sea, and that if the German troops had embarked at 6 P.M. on the previous evening (the 11th) they could be off the coast of Yorkshire or Northumberland by 6 A.M. on the 13th, but which of the two it was not possible to decide.

His best plan, therefore, would be to concentrate his available forces in two Groups—viz. his own Command, the Northern, in the area Harrogate, Tadcaster, Church Fenton, Leeds; the Scottish Command, about Edinburgh, Glasgow.

He had at his disposal 16 depôt battalions of Regulars, 24 battalions (embodied for three months) of Militia—the above being grouped in Regimental Districts; 47 Infantry Volunteer battalions, organised in Brigades of from 6 to 3 battalions; 4 Militia Royal Garrison Artillery, 32 Volunteer Royal Garrison Artillery, 6 battalions Royal Engineers Volunteers, and 7 regiments of Imperial Yeomanry—making, approximately, a total force of 129,000 men with rifles, 3,500 sabres, 3 depôt batteries Royal Artillery, together with a number of 4·7 guns.[1]

The whole of these, however, were not available for field service, as some had to be left to guard the coast defences on the East Coast.

Having already the skeleton of a higher organisation in the Grouped Regimental Districts and Volunteer Brigades, he decided to expand these as follows, and directed his Staff officer to wire to the Officers Commanding of Grouped Regimental Districts to the following effect:—

1. Repeat War Office telegram.

[1] Note. This number was not ascertainable at the moment, but apparently there were enough to assign 3 batteries—*i.e* 12 guns—to each of the Divisions subsequently formed.

2. I have decided to concentrate every available man in the area Harrogate, Church Fenton, Leeds.

3. Your Command will henceforth be organised as a Division, and you are hereby given the local rank of Lieutenant-General; select the best Staff you can. Choose your own brigadiers, and I will allot you 4·7 guns from the Royal Garrison Artillery Volunteers. Your line of railway will be assigned to you later, and you should be ready to entrain by 6 P.M. to-night.

You must distinctly understand that you have a free hand within your own command, and must move with what you have at the appointed time.

The orders to the Volunteer Brigades were substantially to the same effect.

Each Brigade was notified that it would be made up to six battalions, by the addition of others from unallotted units, and all were warned to be ready to move at 6 P.M.

Whilst these orders were being worked out by the Staff, he sent for the principal newspaper editors in York, informed them of the situation, and hired the front sheet of each paper solely for the circulation of orders. There was no need at this stage to trouble about secrecy—and no other organisation could handle the matter with equal despatch—for news of the invasion, and directions to individuals for their guidance in joining their battalions, etc., had to be circulated to every hamlet.

In this manner instructions were spread to all Volunteers and Reserve men of every description in the North-east Riding of Yorkshire that no attempt was to be made to hold the country east of the Ouse, but that every man wanting to fight, who could not join his headquarters in time to move with them, should make his way with or without uniform to places of concentration duly assigned to the several districts in Doncaster and Leeds — all railways having instructions to carry such men free.

At the same time the inhabitants were warned to stick to their homes, and not to attempt any reprisals against the invader, as there was no necessity to embitter the struggle unnecessarily.

The railways, likewise, were called up on the telephone and warned to clear off all rolling-stock east of the line Newcastle, York, Doncaster, to stop all east-going trains after 2 P.M., and be ready for the movement of troops from 6 P.M. onward. For civilian traffic only the Sunday time-table could be allowed.

Their attention was also called to the need of taking precautions against attempts to blow up girders, and particularly they were

enjoined to see that the great swing bridges over the Ouse were opened.

The Lord Mayor was also called in to communicate with his colleagues and to issue the necessary instructions for the guidance of the Civil Police—*e.g.* to remain in charge of civil gaols, asylums, etc.—and all hospitals were called on to prepare for emergencies.

All these matters having been attended to by 10 A.M., it was now possible to put together the higher organisation of the Army.

The General Officer Commanding, looking at the map, decided to form his Divisions into three Army Corps—viz.:

THE BORDER CORPS. I.

1st Division.—Grouped Regimental Districts.
9 Militia Battalions in three Brigades.
3 Batteries 4.7 guns.

2nd Division.—Durham Volunteer Brigade.—4 Battalions Volunteers, 1 Battalion Regulars.
Tyne Volunteer Brigade was divided into two, as follows:
4 Battalions Volunteers.
3 Battalions Volunteers, 1 Regulars.
3 Batteries 4.7 guns.

3rd Division.—Lancashire Border Volunteer Brigade.
5 Volunteer Battalions, 1 Regulars.
Richmond Volunteer Brigade.
4 Volunteer Battalions, 2 Regulars.
3 Batteries.
Corps Details.—
2 Field Batteries (1 Regulars, 1 Elswick).
1 Battalion Royal Engineers Volunteers.

NORTH LANCASHIRE CORPS. II.

4th Division.—Grouped Regimental Districts.
9 Militia Battalions in three Brigades.
3 Batteries 4.7 guns.

5th Divison.—
1st Brigade.—3 Depôt Battalions Regular Infantry.
2nd Brigade.—Lancashire Fusiliers Volunteer Infantry, 3 Battalions.
3rd Brigade.—North-East Lancashire Brigade, 4 battalions.
3 Batteries 4.7 guns.

6th Division.—South Lancashire Volunteer Brigade.
5 Volunteer Battalions, 1 Depôt Regular Battalion.
Manchester Brigade.—6 Volunteer Battalions.
Liverpool Brigade.—4 Volunteer Battalions, 2 Depôt Regular Battalions.
3 Batteries 4.7 guns.
Corps Details.—
3 Battalions Lancashire Royal Engineer Volunteers.
1 Battery 4.7 guns.

YORKSHIRE CORPS. III.

8th Division.—Grouped Regimental Districts.
6 Battalions Militia in two Brigades.
3 Batteries 4.7 guns.
9th Division.—West Yorkshire Volunteer Brigade, divided into two Brigades of 3 Battalions each.
3 Batteries 4.7 guns.
10th Division. { South Yorkshire Brigade, 3 Battalions.
3 Battalions Depôt Regular Infantry.
3 Batteries 4.7 guns.
Corps Details.—
1 Battery 4.7 guns.
1 Depôt Field Battery (Sheffield).
1 Battalion Royal Engineers Volunteers (Leeds).

CAVALRY DIVISION.

1st Brigade { Northumberland Hussars.
Westmoreland and Cumberland Hussars.
Yorkshire Hussars.
2nd Brigade { Yorkshire Dragoons.
East Riding Imperial Yeomanry.
Duke of Lancaster's Hussars.
1 Depôt Battery Royal Horse Artillery from Manchester.

As a nucleus for the formation of a Reserve Corps ordered to assemble at Leeds, there remained—

1 Yeomanry Regiment (Lancashire Hussars); 20 Battalions Royal Garrison Artillery Volunteers; and 3 Depôt Battalions Infantry.

These orders were telegraphed by 12 noon and would reach the Headquarters, to which they were addressed, by telegram in an hour—in full detail by motor by about 3 P.M.

The Officers Commanding grouped Regimental Districts were promoted to local rank of General and ordered to assume command of their respective Corps.

Duplicates for guidance were sent to the Scottish Command.

Each Corps was further assigned its railway zone.

I. Border Corps.—The North-Eastern to Harrogate from the North.

II. North Lancashire Corps.—Midland, North-Western, Lancashire and Yorkshire.

III. Yorkshire Corps.—Great Northern, Midland, and North-Eastern, South of Leeds.

In fact, the railways in this district are so numerous that, except for the Border Corps, each Division could have a separate system allotted to it. Hence as each requires at the outside only twenty-five trains, the whole could easily be despatched in five hours, and the movement being commenced at 6 P.M.—journey time taken at three hours maximum—the whole force would be in their allotted positions by 2 A.M. on the 13th.

At 2 P.M. the General Officer Commanding, with his Commanding Royal Engineer, motored to Tadcaster, where he met the Divisional Staff Officers and the Officers Commanding of the several Royal Engineer Volunteer battalions by appointment made over the telephone, and with them inspected the whole position, distributing it into sections to each Division. The final arrangement was as follows :—

Cavalry Brigade.—Ripon (outposts towards Thirsk and Easingwold).

Border Corps	1st Division.—Harrogate (outposts along the Nidd). 2nd Division.—Spofforth (outposts along the Nidd). 3rd Division.—Pannal.
Lancashire Corps	4th Division.—Wetherby. 5th Division.—Bramham. 6th Division.—Thorner.
Yorkshire Corps	In Reserve (on the Wharfe from Otley to Harewood).

Each Division to prepare its own front for obstinate defence—the counterstroke, if any, being reserved for the Yorkshire Corps and the nucleus of the Reserve.

About 6 P.M. all arrangements as far as the General Officer Commanding was concerned were made, and he motored back to York, with nothing further on his mind until news of the expected landing arrived next morning.

Meanwhile, his Staff had organised a 'motor-scouting section'—external to all existing arrangements—to keep the enemy's advance under observation; and all telegraph offices, constables, etc., had been warned what course to pursue.

If the enemy appears north of the Tees the force now concentrated about Leeds can be readily transferred by the North-Western and Midland to Scotland, and *vice versâ* if the enemy lands on the Yorkshire coast, the Scottish Command can be directed by the same lines on his flank.

The position, too, admits of a protracted defence, for its eastern flank is covered by the formidable obstacle of the Ouse, which below Naburn is tidal, the flood coming up in a 'bore,' between clayey banks some thirty feet high, and except swing railway bridges there is only Selby bridge, from Naburn to the sea, and that of course would be destroyed. The bridges at York itself would better be left standing: the delay caused by the necessity to repair them, in a town so rich in material, would not be worth the sacrifice; besides we may require them hereafter ourselves.

It is unnecessary to discuss in detail the steps necessary to be taken by the Brigadiers and Battalion Commanders on receipt of their orders—practically they are identical with those which each has to take every year for the annual camp, with the exception that, as no tents or other gear would be taken, the procedure would be much simplified. All that would be necessary would be for the Division Commanders to assign the order in which the Brigades would move, and the Brigadiers in turn to fix the places and time for entraining, in consultation with the railway authorities. To manage twenty-five specials with a clear line and a whole night to do it in, would be the merest child's play for the railway company.

Turning now to the Invader's side, the assumption is made that secret instructions are already in existence to meet a case of this nature. The five Corps nearest at hand would be selected, and their units would move off as they normally stand on an 'Alarm parade' by the Kaiser. This would give each battalion about 500 men, each battery four guns, the Cavalry full war strength; but to

economise transport it is assumed that only one squadron and four batteries per Division would be embarked, and one Cavalry Division (with three four-gun batteries), supported by a special brigade formed of six battalions of Rifles, would be better adapted to the English country than a larger Cavalry force. For the Rifles, being picked men, can easily keep up with Cavalry in such intersected ground.

Starting from Emden, Bremen, and Hamburg at, say, 8 P.M., and escorted by the whole German Fleet, they should be off the Yorkshire coast about daybreak of August 13, and it is assumed that they disembark in the following order :—

The Rifle Brigade, sent specially in advance in fast steamers, lands between 5 and 6 A.M. at Saltburn, pushing on at once towards Yarm, to cover the right flank from any local attempt by the Newcastle and Tyne Brigades.

1st Division, Runswick Bay, marches to Ingleby Greenhow.

Cavalry Division, Sands End to Whitby, moves at once to Guisborough and Stokesley, covered to the north by the Rifle Brigade.

2nd Division, Robin Hood's Bay to Lastingham.

This completes the 1st Corps.

2nd Corps, North and South Bay, Scarborough, marches to Pickering.

3rd Corps, Filey to New Malton.

4th Corps, Bridlington to Great Driffield.

5th Corps, Hornsea to Beverley.

Second Day (August 14).

The Cavalry now take the lead on the right, followed by the Rifle Brigade, and probably come into contact with Cyclists and Yeomanry about Northallerton.

1st Corps unites its Divisions between Thirsk and Helmsley (a difficult and trying march).

2nd Corps, Easingwold—Helmsley.

3rd Corps, Stillington—Sutton-on-the-Forest.

4th Corps, York—Bossall.

5th Corps, York—Wilberfoss.

These places only indicate the point reached by the head of the main body; actually the columns would bivouac along the roads for a depth of several miles.

These movements would, of course, in a friendly country, be all

reported to the General Officer Commanding, but nothing would be gained by attempting partial resistance, for, on such a broad front, any small force endeavouring to delay an enemy's advance is sure to have its flanks turned and be forced back with more or less heavy loss ; but these affairs have a profoundly depressing effect on raw troops, and are best avoided.

But in the present situation this information is of little avail to the Defender, for a glance at a large-scale map will show that, thanks to the lie of the roads, the assailant can mass either three Corps on his right whilst retaining two on the left, or, *vice versâ*, attack with three on the left and two on the right. Hence the Defender is compelled to await events, turning the additional twenty-four hours to the best account by preparing his men for the struggle.

Actually, in the case under discussion, the assailant commenced operations on the morning of the third day (August 15) by an attack, commenced about 8 A.M., from Ripon towards Harrogate ; about 10 A.M. another attack developed on the road from York to Tadcaster ; for several hours serious fighting ensued along the whole front, inducing the Divisional and Corps Commanders on the defenders' side to use up their reserves.

About 5 P.M. a decisive attack was launched against the centre, three Army Corps advanced upon Kirby-over-Blow and Wetherby, and the Defenders' reserves, placed in strict accordance with British conventional practice, arrived too late to save the situation.

The Yorkshire Corps fell back south on Pontefract, the Lancashire Corps on Leeds, the Border Corps was driven across the Wharfe at Otley, and fell back on Bradford.

Meanwhile the General Officer Commanding of the Defenders had already, on receipt of the news of the landing of the enemy, called on the Scottish Commander for his support, *viâ* Skipton and the branch line from Hawes to Bedale, and had received, in reply, the assurance that he would commence to arrive at Skipton after 8 A.M. on the 16th (trains at 10 minutes' interval), and between Leyburn and Bedale at the same time (but trains at 20 minutes' interval).

Hence there was fair chance of gaining considerable time by a blow at the enemy's right flank, which, being screened by the Yeomanry, who had been skirmishing all day in the vicinity of Middleham, had very fair chances of success.

Actually, in the War Game I am narrating, the enemy—*i.e.* the Invader—was at this point seized with a brilliant inspiration.

Looking at the map, in the presence of the Umpire, his eye suddenly fell on the great succession of water-works reservoirs in the vicinity of Pateley Bridge, Blubberhouses, Ilkley, and Skipton, which supply Leeds and Bradford with their drinking-water. Pushing on with all speed, on the morning of the 16th, he seized these, and while his troops were still pressing the enemy hotly on the roads to Skipton, Leeds, and Bradford, he notified the two latter towns that any attempt at further resistance would be answered by cutting off the water, and since neither can drink the water in the rivers which flow through them, the Defender was compelled to break off the action, before the two Scottish Corps could make themselves felt.

The situation which resulted gave rise to several discussions throughout the following year. It was clear that Leeds and Bradford must submit; on the other hand, once the assailant entered them, he, too, became dependent on their water supply, and he could not well crowd all his troops into the single valley of the Calder—the only other line which led him to Manchester and the other great towns in South Lancashire.

Though the further operations were not worked out in detail, it became sufficiently clear that they could only be very slow and indecisive; for each of the countless townships in the district to be traversed formed a succession of defiles, and countless obstacles could be created in the assailant's path, whilst his flanks could be annoyed by small parties favoured by their knowledge of the ground and the help of the inhabitants.

A week is about the lowest estimate for the passage of the district from Leeds to the foot of the moors which separate Yorkshire from Lancashire, and that week would be sufficient to fill up all gaps in the Defender's ranks, double most of his units by the creation of reserve formations, and to entrench the whole line of the moors from Settle in the North to Kinder Scout in the South.

For the defence of this line there would then be available two mobile intact Corps, operating from Hawes, down the valleys of the Ure and Swale, about 60,000 men; the three original ones, together with a fourth Reserve Corps in the centre—say 120,000 men at the lowest; and the Irish Corps debouching from Chester to combine with such portions of the Southern Army which by this time would presumably have become available.

Possibly the struggle in the South might still be protracted, and no assistance could be hoped for from that quarter; but even without it the chances of the assailant—his numbers reduced by

fighting, and his communications with his country cut, or about to be cut, by our returning Fleet—would be very far from rosy.

The conclusion of the whole matter is briefly this. Any foreign Officer, having complete confidence in his own men, would not hesitate to accept all the above risks; for even if he failed, and had to surrender at discretion, he might reasonably count on inflicting such a shattering blow at our whole commercial prestige as to paralyse us for years to come. On the other hand, a British Officer, knowing his men equally well, would have little doubt of his power to compel an invader to ultimate surrender, though he could not guarantee that the country's trade would survive the injury done to it before the invader was laid by the heels.

But in these cases it is the opinion of the invader which decides whether the game is worth the candle, not that of the Defender.

I worked out the above scheme and organisation step by step, in the order indicated, with only the assistance of a single Staff Officer, and their preparation actually occupied us about five hours, though we had to sort out all the units from the Army List, and had no previous idea of how we intended to group them.

On the other hand, I had a far more intimate knowledge of the topography of Yorkshire, and its railway facilities, than any Officer on the Active List, not a Yorkshireman, is likely to possess.

I have also reconnoitred the landing places, except Bridlington and Hornsea, again and again, and would accept the responsibility of landing troops upon them, except with a strong north-easterly breeze, which is very unusual indeed in the summer.

Points to be Remembered in Invasion Schemes.

1. Troops can be landed wherever children can play on the sands, or Bank Holiday trippers embark for a shilling 'blow on the sea.'
2. Given adequate quay or shore space, fifty unit ships can disembark their contents in the same time as any one ship.
3. Combatants can march off as each unit lands; they need no wait for their trains.
4. Over whatever ground, or through whatever covert men can shoot for pleasure, they can also shoot for *duty*.
5. Organised units can be moved by railway as quickly as Bank Holiday crowds.

6. Including Martini-Henry rifles, there are always arms enough in the country for every trained man; they only need to be conveniently distributed.

7. There is always food and transport enough for a week's emergency, and ample powers are provided to requisition it.

I add these notes, because in most discussions I notice these points are overlooked. Under our existing system of military training we are taught to see difficulties as a reason for hesitating to face them—in other countries the motto is that 'difficulties exist in order to be overcome.' Which idea is most in consonance with the spirit of the British Nation?

F. N. Maude.

PRINTED BY
SPOTTISWOODE AND CO. LTD., NEW-STREET SQUARE
LONDON

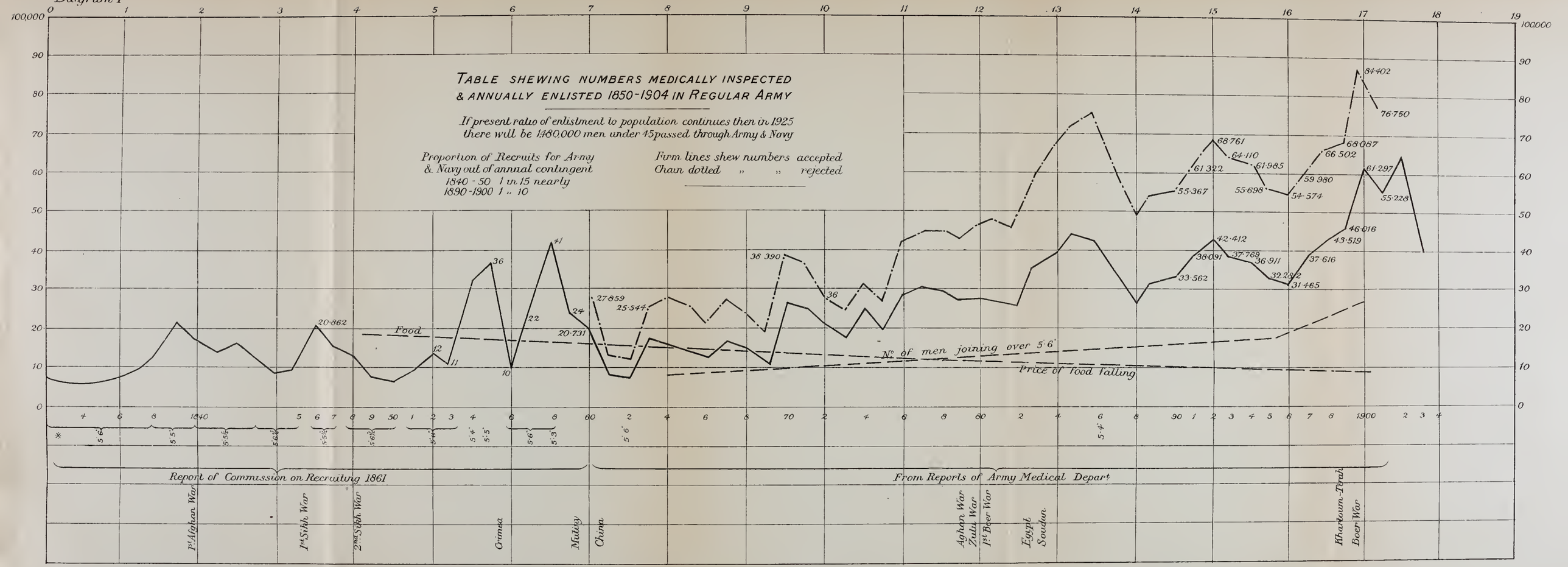
Diagram I

TABLE SHEWING NUMBERS MEDICALLY INSPECTED & ANNUALLY ENLISTED 1850-1904 IN REGULAR ARMY

If present ratio of enlistment to population continues then in 1925 there will be 1480,000 men under 45 passed through Army & Navy

Proportion of Recruits for Army & Navy out of annual contingent
1840 - 50 1 in 15 nearly
1890-1900 1 „ 10

Firm lines shew numbers accepted
Chain dotted „ „ rejected



* NOTE. These figures refer to minimum standard for infantry only. Drivers R.A. R.E. & A.S.C. always taken below this standard if otherwise fit.

Diagram II

RECRUITS. – *All kinds offering*

This table shows gradual rise in popularity of Army. – See Note on No I.

For 10 years 1840-50. Average numbers of recruits per annum raised for Regular Army 13,400. No Militia or Volunteers embodied

,,	1870-80	,,	,,	,,	,,	,,	24,730	Militia 30,000. Volunteers 35,000
,,	1880-90	,,	,,	,,	,,	,,	30,330	,, 30,000. ,, 45,000
,,	1890-1900	,,	,,	,,	,,	,,	38,167	,, 30,000. ,, 55,000

If the Navy be added in, this gives 1840-50 about 1 in 20 of annual contingents, 1850-60 (War years) one in five, 1860-70 one in three, 1870-80 one in three, 1880 to 1890 one in three, in 1900, War year, two in three, exclusive of special formations (approximate only).

TABLE SHEWING TRAINED MEN (A & N)

Available (a) 1854. (b) 1900.

(a) 1854	under 45.	Regular Army & Navy	120,000
		plus men discharged	200,000
			320,000
(b) 1900	,, ,,	Regular Army & Navy	500,000
		add ex-Reserve Army	400,000
		,, discharged Navy	150,000
		,, Volunteers	920,000
		,, Militia & Yeomanry	736,000
			2,706,000

1925 – allowing for increase of population
Annual contingent will be 520,000.

Regular Army will train	1,480,000
Volunteers & Militia	2,960,000
Navy	200,000
	4,640,000

Annual Contingents

385,000

Computed Rejections before reaching Doctor

Volunteer Rejections

Militia & Yeomanry Rejections

Regular Army Rejections

Navy Rejections

Volunteers

39

36·6

Per centage of Paupers

23·8

120,000 Volunteers

These lines are hypothetical

Yeomanry & Militia

Militia Embodied

Regular Army

30,100

38,184

24,790

13,637

Navy

1840 45 50 55 60 65 70 75 80 85 90 95 1900

Thousands 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10,000 0

Diagram III

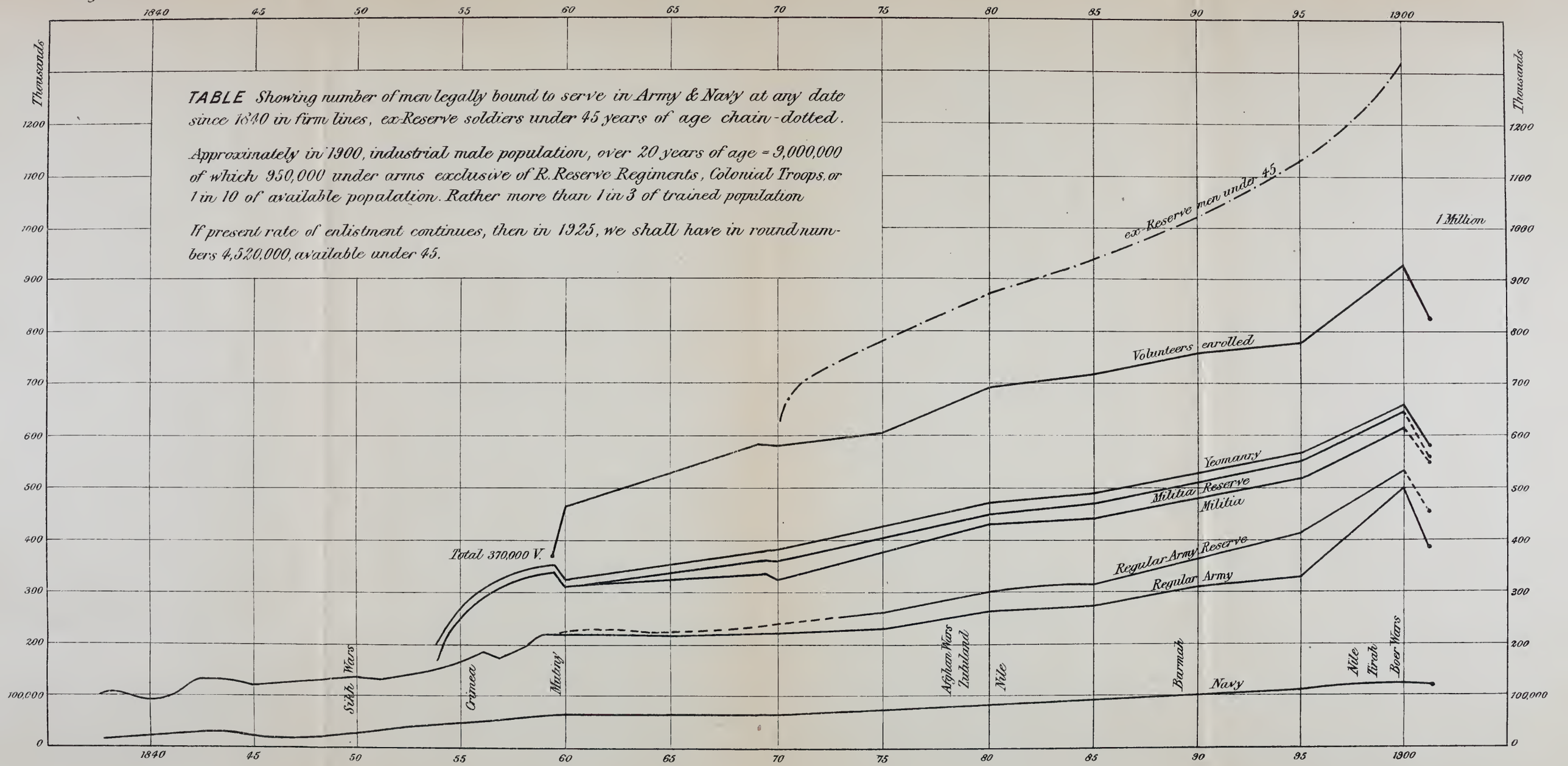
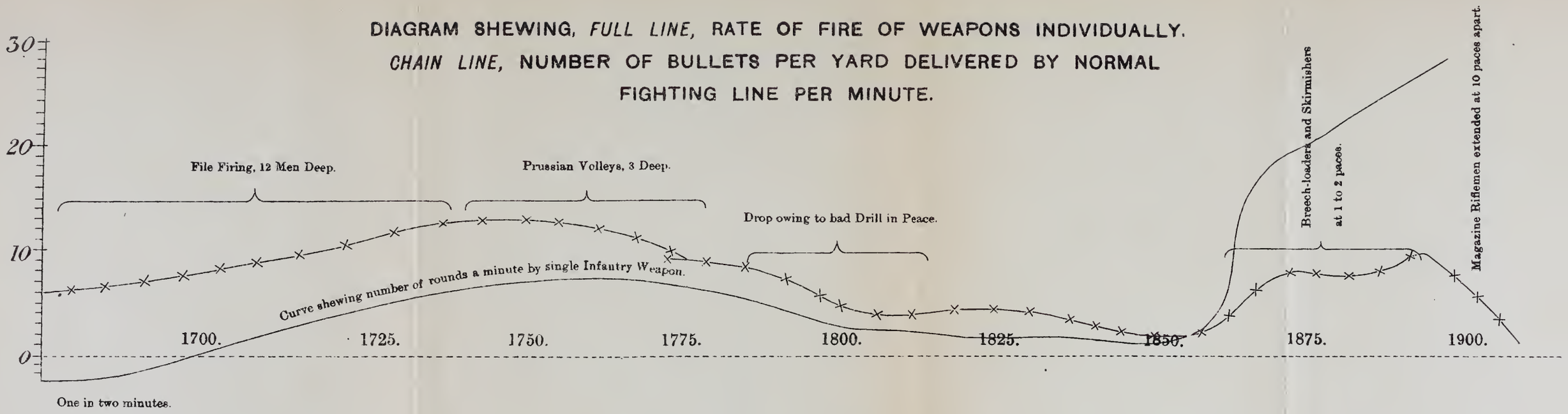


TABLE Showing number of men legally bound to serve in Army & Navy at any date since 1840 in firm lines, ex-Reserve soldiers under 45 years of age chain-dotted.
Approximately in 1900, industrial male population, over 20 years of age = 3,000,000 of which 950,000 under arms exclusive of R. Reserve Regiments, Colonial Troops, or 1 in 10 of available population. Rather more than 1 in 3 of trained population
If present rate of enlistment continues, then in 1925, we shall have in round numbers 4,520,000, available under 45.
Thousands
1840
45
50
55
60
65
70
75
80
85
90
95
1900
0
100,000
200
300
400
500
600
700
800
900
1000
1100
1200
ex-Reserve men under 45
1 Million
Volunteers enrolled
Yeomanry
Militia Reserve
Militia
Regular Army Reserve
Regular Army
Navy
Total 370,000 V.
Sikh Wars
Crimea
Mutiny
Afghan Wars
Zululand
Nile
Burmah
Nile
Tirah
Boer Wars

Fig. 1.

DIAGRAM SHEWING, *FULL LINE*, RATE OF FIRE OF WEAPONS INDIVIDUALLY. *CHAIN LINE*, NUMBER OF BULLETS PER YARD DELIVERED BY NORMAL FIGHTING LINE PER MINUTE.



CURVE OF LOSSES PER HOUR AT VARIOUS PERIODS FROM TYPICAL INFANTRY BATTLES.

Fig. 2.

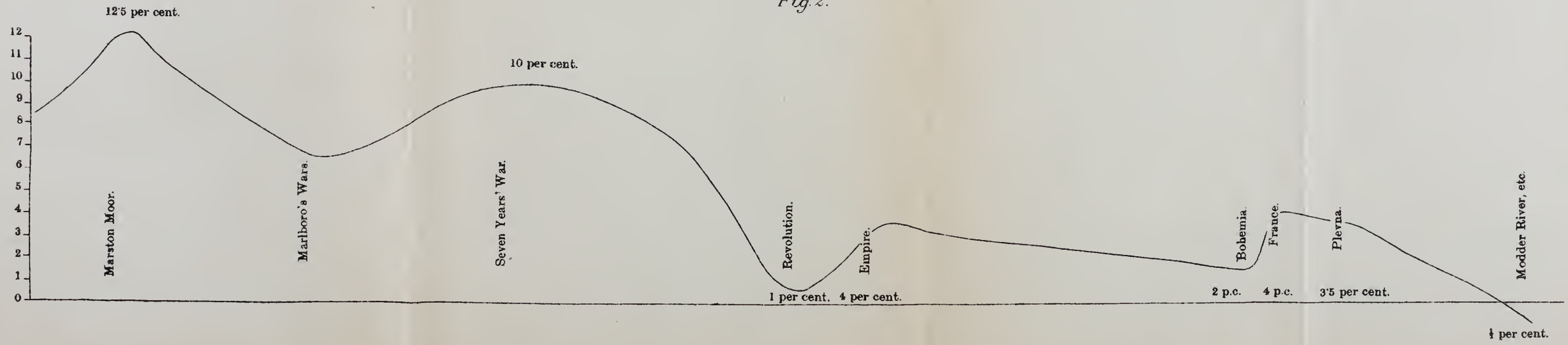
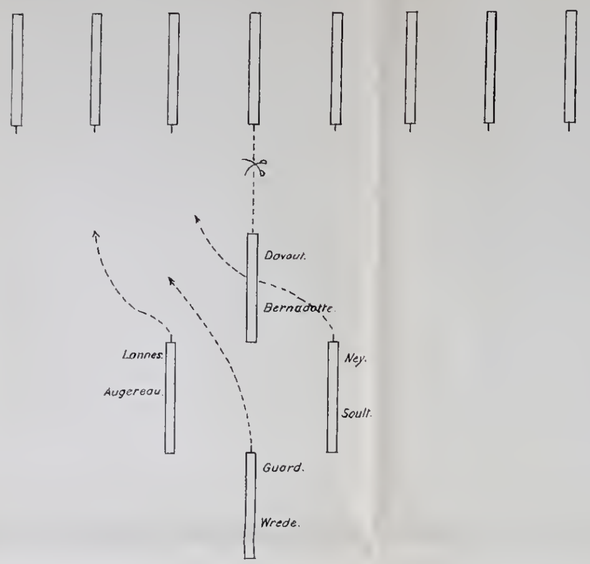
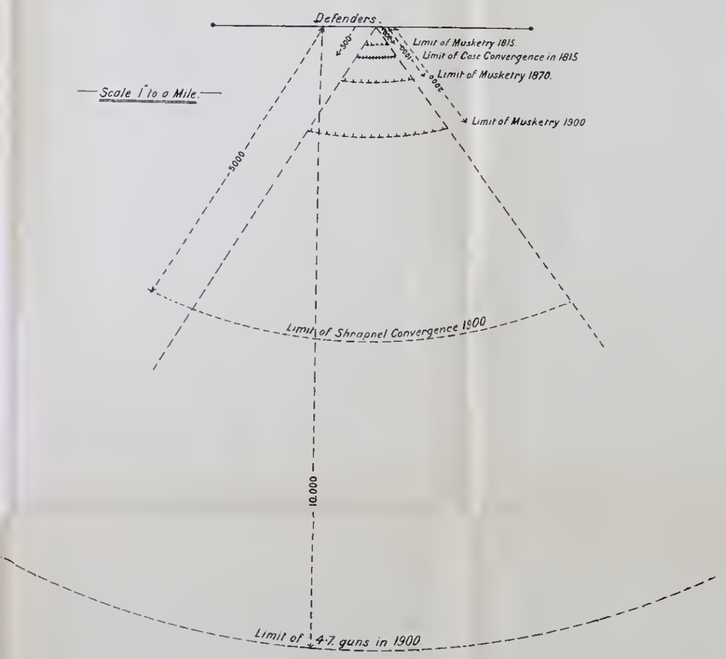


DIAGRAM TO ILLUSTRATE THE NAPOLEONIC SYSTEM.

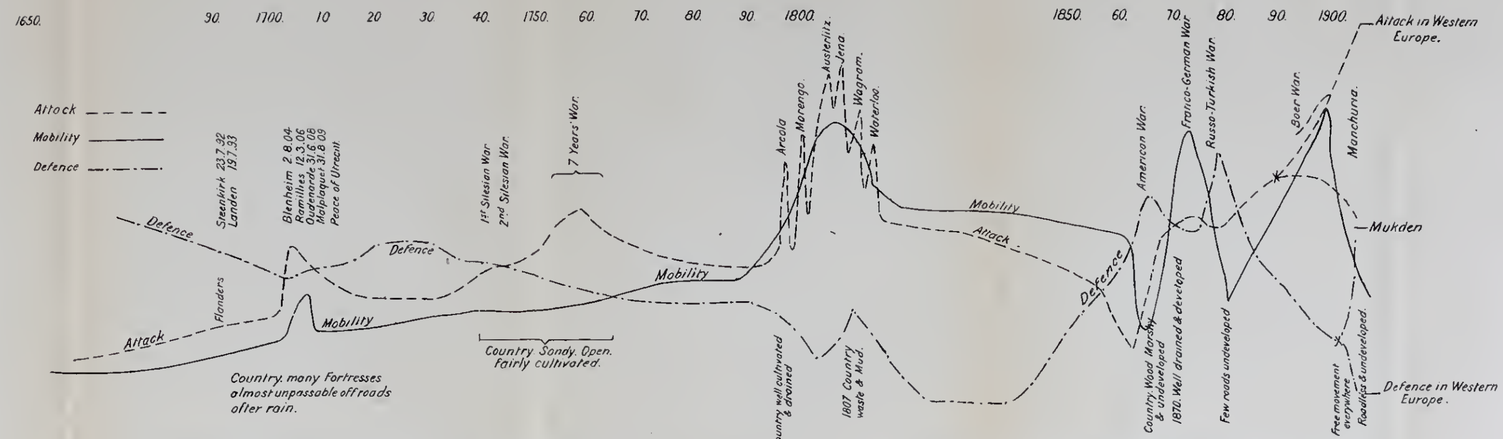




The advantages gained by increased range of weapons for attack will be seen in each case to be proportionate to the amount of cover between the limits of best range and extreme range.

DIAGRAM SHEWING RELATION OF ATTACK AND DEFENCE AND ITS DEPENDENCE ON MOBILITY DURING THE LAST THREE CENTURIES.

Diagram V



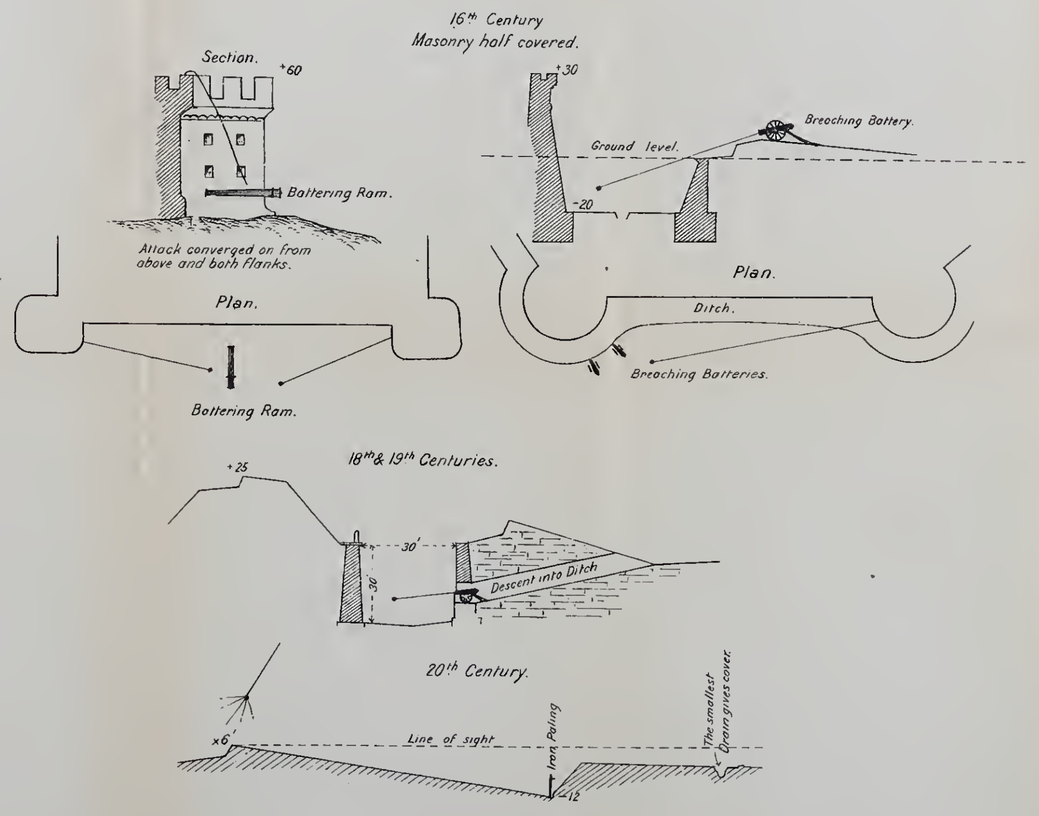
NOTE.—The line marked "Mobility" indicates the difference of the mobility on either side, due to higher or lower training, superior leadership, etc., added to the value of the factor itself arising from local conditions. Thus, in Flanders, nature of soil and fortresses renders it low. In Prussia, drier soil and no fortresses make it greater. Manchuria, absence of roads and conformation of country north of the mountains render it very low again.

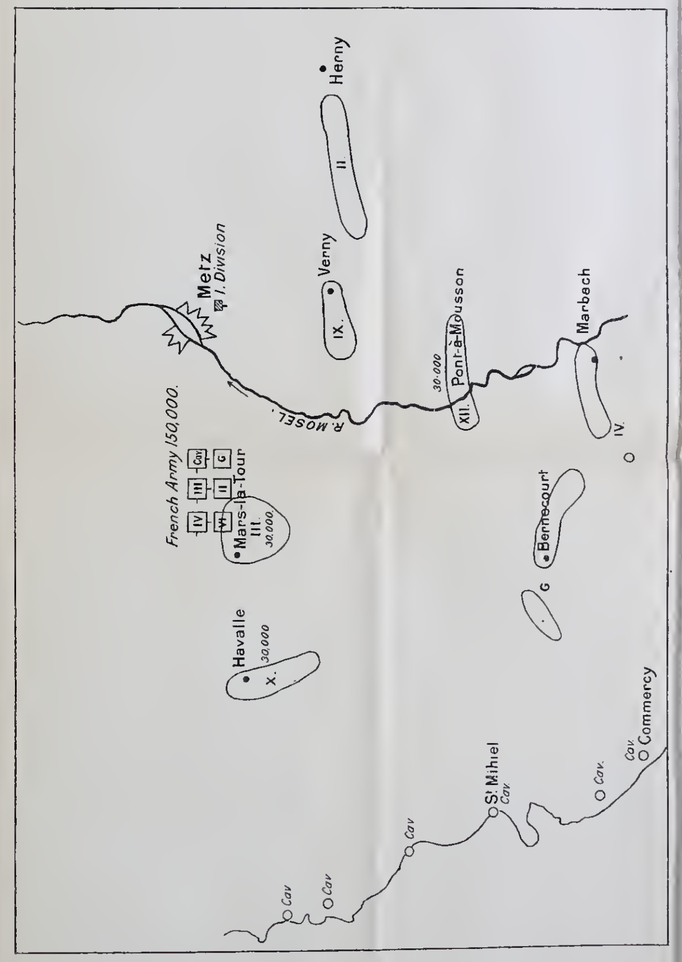
The line marked "Attack" gives not only the dates of campaigns, but indicates also their intensity. Compare the lightning-like flashes in the Napoleonic period with the absence of oscillations during the Spanish Succession. Only Marlborough's genius for a moment breaks the monotony.

The line "Defence" is arrived at mainly by a study of the development of Artillery—Field and Siege. Practically, it may be measured by the amount of earth a unit shell can displace, and the cost in time and money of getting that shell to the right place. In the field it is mainly dependent on the distance from which a shower of bullets—case or shrapnel—can be delivered upon the enemy's position.

With Infantry, loading lying down or standing up, as with the old muzzle-loaders, range from which fire superiority can be attained, and distance to be covered in the final rush have all been considered.

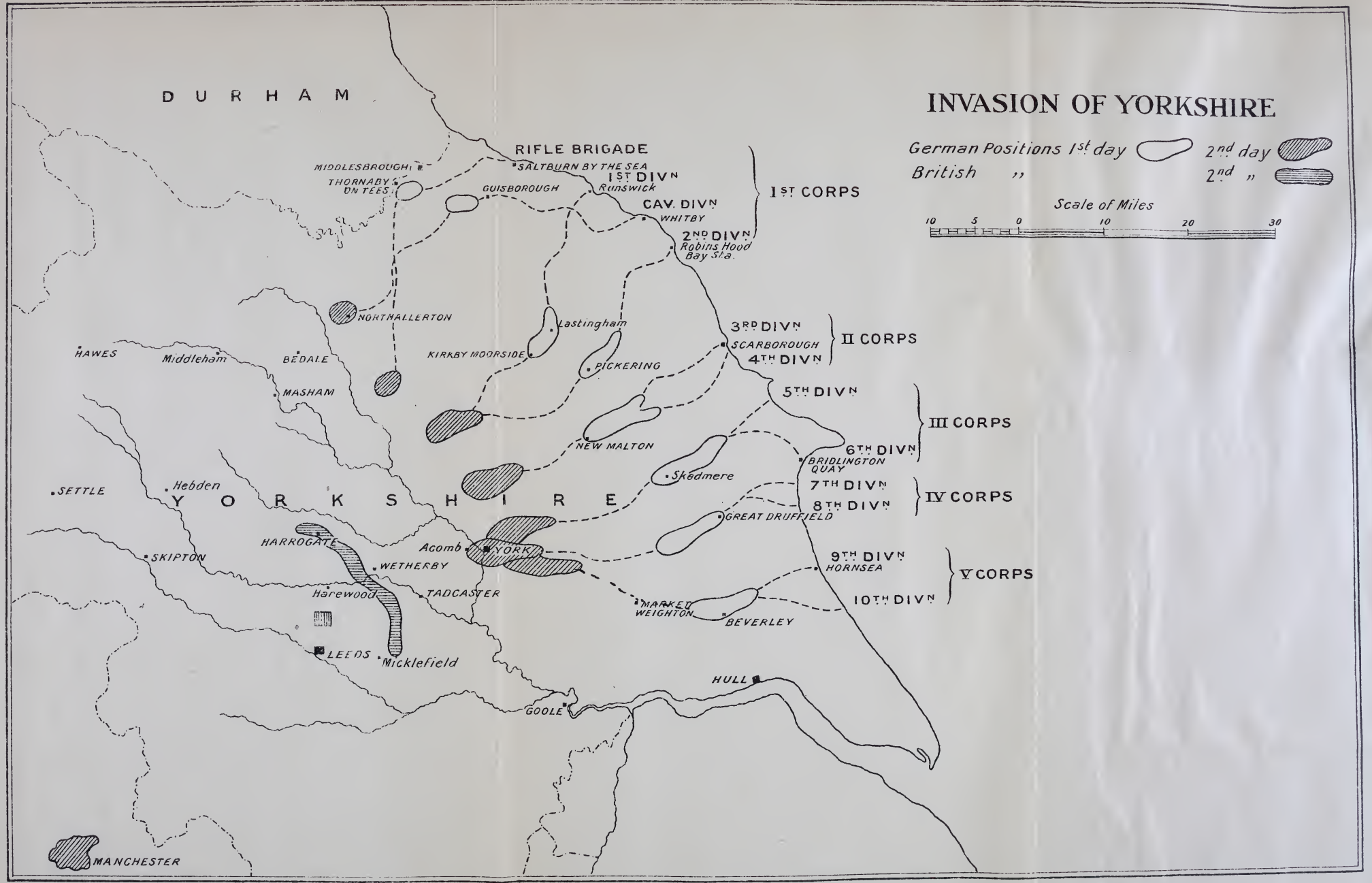
ATTACK AND DEFENCE—INFLUENCE OF TECHNICAL PROGRESS.





Date Due

APR 30 '72			
APR - 1			


INVASION OF YORKSHIRE
German Positions 1st day
2nd day
British ,,
2nd ,,
Scale of Miles
10 5 0 10 20 30
DURHAM
RIFLE BRIGADE
SALTBURN BY THE SEA
MIDDLESBROUGH
THORNABY ON TEES
GUISBOROUGH
1ST DIVN
Runswick
CAV. DIVN
WHITBY
2ND DIVN
Robins Hood Bay Stn.
1ST CORPS
NORTHALLERTON
Lastingham
3RD DIVN
SCARBOROUGH
II CORPS
4TH DIVN
HAWES
Middleham
BEDALE
KIRKBY MOORSIDE
PICKERING
MASHAM
5TH DIVN
III CORPS
NEW MALTON
6TH DIVN
BRIDLINGTON QUAY
Skedmere
SETTLE
Hebden
YORKSHIRE
7TH DIVN
8TH DIVN
IV CORPS
GREAT DRIFFIELD
HARROGATE
Acomb
YORK
SKIPTON
WETHERBY
9TH DIVN
HORNSEA
V CORPS
Harewood
TADCASTER
MARKET WEIGHTON
10TH DIVN
BEVERLEY
LEEDS
Micklefield
HULL
GOOLE
MANCHESTER

136488

Maude, Fred. N.
Author
War and the world's life.
Title
London, Smith, 1907.

BOSTON COLLEGE LIBRARY
UNIVERSITY HEIGHTS
CHESTNUT HILL, MASS.

Books may be kept for two weeks and may be renewed for the same period, unless reserved.

Two cents a day is charged for each book kept overtime.

If you cannot find what you want, ask the Librarian who will be glad to help you.

The borrower is responsible for books drawn on his card and for all fines accruing on the same.

BOSTON COLLEGE
3 9031 020 14721 1

BOSTON COLLEGE
3 9031 020 14721 1